Clinical Lectures
ON
DISEASES OF THE EYE.

Delivered at the Nottingham and Midland Eye Infirmary,

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LECTURE VII.

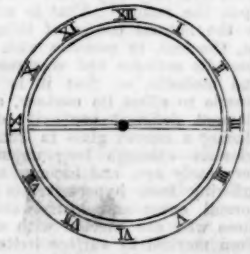
ON CERTAIN DEFECTS OF VISION WHICH ADMIT OF REMEDY BY SPECTACLES.

(Concluded from page 1165.)

THE man introduced to you, who is twenty-six years of age, is evidently both myopic and astigmatic, for we found, on examination with the ophthalmoscope, that the retinal vessels, which were defined in the vertical meridian, were obscure in the horizontal, and that the disc, which was perceptible at eight inches, faded on approach, reappeared as a vertical oval on close contact, and was rendered more distinct, but not perfectly visible, by a weak concave lens behind the mirror. On producing the inverted image in the usual way, you saw a comparatively small disc, which was oval in the horizontal meridian so long as the object lens was close to the eye, but which became first round and then oval in the vertical meridian as the lens was slowly withdrawn. Skiascopy, too, revealed an imperfect reflection of the flame of the lamp and a blurred fantastic shadow, which seemed

FIG. 3.

FIG. 4.



to move with us in the myopic, and did move against us in the emmetropic meridian, while a concave cylinder worn by the patient cleared up the image and reversed the shadow. On asking the patient if he could see the time by the Exchange clock, he made the following curious and characteristic reply: "No, not always; yes, sometimes." One would think that the eye that could distinguish the position of the index at one hour could do so at another. But it is not so with astigmatics; they can see when the hands are in a certain direction, but not when they are placed at right angles to the point of best vision. Hence, on testing this patient with Mr. Carter's clock, we found that he could see fairly well when the parallel lines pointed from six to twelve (Fig. 3); but that on turning them from three to nine (Fig. 4) vision became obscure, and was not brought up to the normal standard until we placed a concave lens of twenty inches focus before the eye. You will naturally conclude from this that the patient is short-sighted in the horizontal meridian, and normal-sighted in the vertical meridian; but it is not so. Paradoxical as it may seem, he is really short-sighted in the vertical meridian, and normal-sighted in the horizontal meridian. I know it is the vertical meridian which is at fault, because a line is, optically speaking, a succession of dots or points, from each of which light is reflected; each reflection is, of course, accompanied by diffusion circles, and if the line is vertical these circles overlap in the vertical plane, consequently are not seen, and thus accentuate without otherwise interfering with the retinal image in that plane. But the rays which diverge in the horizontal direction in vertical myopia are seen, and do spread out the retinal image in the horizontal meridian, and thus impair sight in that direction. Hence patients with hypermetropia in the horizontal meridian have hypermetropic vision for vertical lines, and patients with myopia in the vertical meridian myopic vision—as in the case before us—for horizontal lines. By placing a concave glass before the eye we get rid of the horizontal circles of diffusion by neutralising the vertical myopia; but the glass must be confined to the meridian at fault; otherwise, while correcting the vertical meridian, which is short-sighted, we shall render the horizontal meridian, which is normal, hypermetropic. What is to be done? It is obvious that, if we are to correct the defect, we must have a glass which will refract the rays in one meridian without interfering with the other; and such a glass you will find in the test case under the title of "cylinder"—that is, a lens which is a section of a cylinder of crown glass, flint glass, or pebble cut parallel to its axis (Fig. 5), so that rays of light passing through the cylinder parallel to its axis are unaffected, while rays which strike the cylinder perpendicular to its axis are refracted in proportion to the strength of the glass. Now you noted in the case before us that the patient (who is suffering from simple myopic astigmatism) easily defined vertical lines at fifteen feet without any glass, but that he required a spherical concave lens of twenty inches focus in order to see horizontal lines at the same distance. If we therefore order for him a *concave cylinder* of twenty inches focus, and place it so that its axis (which does not refract) corresponds with the horizontal meridian (which is not affected), we shall cure the dim vision in the horizontal meridian by neutralising the myopia in the vertical meridian, and thus enable him, like persons with normal vision, to see parallel lines all round the clock with equal facility.[1] (Fig. 6.)

These cases of simple astigmatism, where the eye is normal in one meridian and myopic or hypermetropic in the meridian at right angles to it, are by no means uncommon; but it much more frequently happens that patients are

FIG. 5.

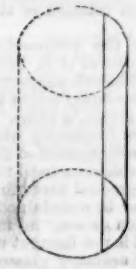


FIG. 6.

myopic in one meridian and less myopic in the other, or that they are hypermetropic in one meridian and less hypermetropic in the other. With such patients, who are suffering from what is called compound astigmatism, we must ascertain the number of the ordinary spherical glass required to correct each meridian separately, and then, either in dioptrics or fractions, deduct the lesser number from the greater; the resulting figure will give us the measure of the astigmatism and the number of the cylindrical lens necessary to correct it. It does not suffice, however, to have corrected the astigmatic meridian alone; there is still a remaining or resulting defect to deal with, and this is corrected with an ordinary spherical glass after the cylinder is fixed, just as though there had been no astigmatism at all. For instance, a patient requires a concave or convex spherical glass of, say, twelve inches focus to see horizontal lines, and a concave or convex spherical glass of eight inches focus to see vertical lines: in order to ascertain the cylindrical lens necessary to correct the defect, we must deduct one-twelfth from one-eighth, and the resulting one-twenty-fourth is at once the measure of the astigmatism and the number of the cylinder required to correct it. Fix this glass with its axis coincident with the major visual defect, and you have at once reduced the case to its simplest elements, and need only to add the spherical glass—convex or concave, as the case may be—which is

[1] Persons affected with astigmatism frequently complain that they cannot see the horizontal lines of music, while the vertical are distinct, or *vice versâ*. They also have difficulty in naming certain letters: *p* and *f* are mistaken the one for the other; *c* is called *g*, or both are mistaken for *o*; while such letters as *l* and *t* are discerned at once.

necessary to correct the remaining or resulting ametropia. It now and then happens, however, but not often, that the astigmatism is what is called mixed—that is, the patient is hypermetropic in one meridian and myopic in the other. When this is the case, we add the numbers of the lenses necessary to correct each meridian together, and, having thus got the degree of the astigmatism and the number of the glass required to correct it, add the spherical glass necessary to neutralise the remaining ametropia, again just as though there had been no astigmatism at all. For instance, the patient requires for vertical lines a concave glass of twenty inches focus, and for horizontal lines a convex glass of twenty-four inches focus: one-twentieth and one-twenty-fourth together give as near as may be one-eleventh; consequently, a convex cylinder of eleven inches focus will correct the astigmatism, and we must then, as in the former cases, ascertain what spherical glass is necessary in addition to secure the nearest approach to normal vision. It is simpler still if you adopt the metrical system; for instance, your patient has normal sight, say, in the horizontal meridian, and a myopia or hypermetropia of two dioptrics in the vertical meridian—i.e., he has simple astigmatism of two dioptrics, and will require a concave or convex cylinder (as the case may be) of two dioptrics, with its axis coincident with the visual defect, to remedy his ametropia. Or he has myopia or hypermetropia of two dioptrics in one meridian and three in the other; then we say the astigmatism is the difference between the two—namely, one dioptric; or he has one dioptric of hypermetropia in one meridian and one dioptric of myopia in the other, in which case the astigmatism equals the sum of both meridians—that is, two dioptrics,—and may be remedied by a cylinder of two dioptrics in conjunction with a spherical glass as just suggested, or by two cylinders, one for each meridian—that is, a lens with a convex cylindrical surface of one dioptric on one side and a concave cylindrical surface of one dioptric on the other; the axes of the two, however, must, in this latter case, be precisely at right angles, a requirement which is apt to be defeated by the slightest rotation of the lens during the process of grinding.

Astigmatism was first discovered by the philosopher Young in 1793. Sir George Airey rediscovered it in 1827, and devised the remedy; while Professor Whewell suggested that, as the eye had no single focus, the condition might be termed astigmatism, from *a* without, and *στίγμα*, a point.

Slight forms of the corneal affection are frequently neutralised by compensatory accommodative astigmatism of the lenticular surface, and do not become troublesome until the age of forty and upwards, when, owing to gradual hardening of the lens, the compensation can no longer be maintained.[2] You may always suspect this affection when, in the absence of actual disease, defective vision is not brought up to the normal standard, or near it, by ordinary glasses. Such patients, when looking at the test types, frequently hold the head on one side, and evidently see better through a slit, provided of course that the slit corresponds to the normal or least ametropic meridian. Instinctively, in order to obtain this advantage, they will make a small aperture with their fingers, or secure the same result by pulling the eyelids together and inclining the head on one side. The affection is usually symmetrical, affecting both eyes alike; but, as this rule is not invariable, it is necessary to test each eye separately, and in every case to paralyse the accommodation by the frequent instillation of a solution of atropine.[3] Occasionally the astigmatism disappears under the influence of this drug, in which case you may be sure that it depended on distortion of the lens from abnormal accommodative effort; indeed, a certain amount of irregular lenticular astigmatism exists in all eyes. It was an abnormal variety of this lenticular affection from which our distinguished countryman Young suffered, and it is owing to slight degrees of the same variations of the different sectors of the lens that we all, or most of us, see luminous points, such as the fixed stars, not round but radiated.

[2] A slight degree of astigmatism frequently complicates presbyopia, and in such cases glasses which previously were of little use will be found to answer perfectly on the addition of a weak cylinder.

[3] Glasses, which answer every purpose so long as the effect of atropine endures, are, nevertheless, occasionally found unsuitable when the power of accommodation returns. In these cases it is necessary to increase the strength of the concave and reduce the strength of the convex glasses; or we may work out the case again without the use of mydriatics; or persuade the patient to persevere with his spectacles until he is able to dispense with the accommodative effort which interferes with their use.

The remaining patient, a female forty-three years of age, who, you will remark, has come here mainly on account of marginal blepharitis and a feeling as of sand in her eyes, is clearly suffering from presbyopia or old eye (*πρεσβυτ ωψ*), for we found on ophthalmoscopic examination that the disc and bloodvessels were normal, while the image of the lamp, with the shadow test, moved against us. These negative signs, combined with the age of the patient and the reflex irritation of the lids, are characteristic of presbyopia: a diagnosis which was fully confirmed by the subjective symptoms, for she tells us that her eyes ache on prolonged use; that she has lately been obliged to hold small objects, such as print and stitches, some distance from her eyes; that she had difficulty in threading a needle; and that, by gaslight, she has laterly been compelled to lay her work aside on account of pain, lacrymation, and intolerable irritation. All these symptoms are entirely due to a failure of the power of accommodation, which is as natural in advancing years as was the previous growth of the individual.

What is accommodation? and why should it fail when so many persons have so many years of fine work for the eyes before them? Well, accommodation is the term which is used to express the power which we possess (up to a certain age) of rendering the lens more convex at will (as shown by the dotted lines in Fig. 7) by the active exercise of the ciliary muscle; and, as rays of light proceeding from near objects (unlike those from distant objects, which are parallel) are divergent, we are obliged to use that power whenever we look at small objects, such as print or stitches, in order that they may be focussed upon the retina.[4] That is accommodation, and it fails in the natural course of things, because, as time goes on, the lens, in common with other tissues of the body, loses its softness and compressibility, and becomes hard and inelastic, so that it is impossible for the ciliary muscle to affect its contour, and we are obliged to supplement deficient convexity of the crystalline lens by placing a convex glass in front of the eye. This gradual sclerosis — though long unperceived — commences at a very early age, and becomes manifest soonest in patients suffering from hypermetropia; later on in those with normal eyes; and lastly, and to a less degree, with those who are affected with short sight. Its advent is often marked by surface irritation and the formation of styes and pustules, which are of reflex origin, as in the case before us, and the styes are cured and the irritation relieved by a convex glass of sufficient power to enable the patient to read small print at a distance of ten or twelve inches. Such patients, even without glasses, see much better through a pin-hole or a small aperture; hence eserine, in quarter-grain per cent. solution, has been used to contract the pupil in the early stages in lieu of glasses, and in former times, when candles were in vogue, our fathers produced the same effect by holding the light between the face and the book, thus increasing the illumination and reducing the pupillary aperture at the same time.

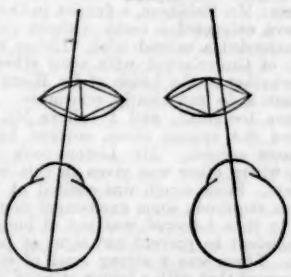
FIG. 7.

It is, better, however, when presbyopia has become manifest, for the patient to commence wearing spectacles; for it has been found (contrary to popular belief) that sight fails more rapidly when glasses are withheld. In selecting them, certain arbitrary rules have been adopted which are so generally useful that you may, *ceteris paribus*, tell the age of the patient by the number of the glass he requires: thus, at forty years of age he will need a convex lens of thirty-six inches focus; at forty-five, a lens of thirty inches; at fifty, a lens of twenty inches; at fifty-five, one of fourteen; at sixty, one of ten; at sixty-five, one of nine; at seventy, one

[4] It is a mistake to suppose that staring at print or stitches for hours together is merely a passive process; it is, in truth, a serious muscular effort, and if unduly prolonged, or accomplished under difficulties, as in cases of hypermetropia or presbyopia, or with deficient light or defective media, is apt to be accompanied or followed by aching and fatigue, which is as natural as the aching and fatigue which are occasioned by any other excessive or unaccustomed exercise. Congenital and miner's nystagmus are caused by the muscular strain in the endeavour to see, just as writer's cramp, auctioneer's spasm, and that curious affection known as ballet dancer's leg, are produced by prolonged and unnatural effort.

of seven; at seventy-five, one of six; and at eighty, one of five inches focus. It will be seen that it is necessary to change the glasses every five years, but seldom oftener; and it is well to note this, for a more rapid loss of accommodation, necessitating a more frequent increase of strength, is one of the earliest, as it is also one of the most important, of the symptoms of glaucoma. You will note that the addition of a convex glass to the passive eye is exactly equivalent to an effort of accommodation; and if we therefore order this patient a convex glass of thirty inches focus, we shall, so far as the deficient compressibility of the lens is concerned, have fulfilled all the requirements of the case. There is another function, however, with which accommodation is always intimately associated—namely, convergence: and if your patient's work should happen to be of the finer sort, or if he should require glasses of high power, the strain upon the internal recti, in order to turn the eyes sufficiently inwards when reading or working, is ofttimes so great as to cause most unpleasant symptoms, such as weariness, discomfort, headache, myalgia, lacrymation, and surface irritation. You will find that this state of things will vanish as if by magic by the use of prisms of two or three degrees, with their bases inwards, in addition to the necessary spherical lens, either in orthoscopic combination,[5] in simple combination, or, better still, by shifting the centre of the convex glass inwards, or by narrowing the frame of the spectacles, so that the lens acts

FIG. 8.



like a prism itself, thus resting the convergence and the accommodation at the same time. (Fig. 8.)

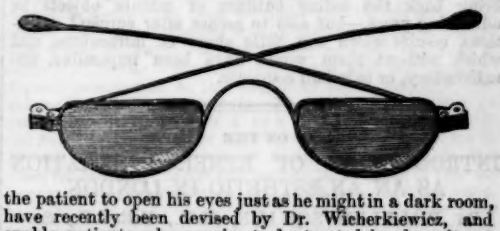
You can readily understand that, if a presbyope's fatiguing efforts at convergence are relieved by a decentred glass, having the effect of a prism with its base inwards, his troubles will be greatly increased by a decentred glass having the effect of a prism with its base outwards. Of course no one would think of adopting such an expedient as this purposely in such cases; but the same effect is not unfrequently produced from carelessness in framing the spectacles, so that the eye does not look through the centre of its corresponding lens, but is displaced outwards, or whenever the frame of the glass is too wide, so that the patient looks through the outer side of the lens—in fact, through prisms which compel increased convergence. In every case care is necessary in measuring the distance between the pupils with compasses before glasses are adopted in order to avoid these accidents; and, whenever there is any doubt, it is well to test the spectacles with a phakometer or lens measurer, an instrument devised by Dr. Snellen of Utrecht, and which you will find fully described in Mr. Carter's admirable lectures on Defects of Vision.[6]

Spectacles are usually manufactured of crown glass or flint glass. Crown glass is composed of silicate of lime and soda, with a slight admixture of boracic acid; while flint glass, which is very hard, but unnecessarily heavy, contains, in addition to silicate of lime, the same salt of lead. The best material, however, is natural rock crystal or pebble, which is very hard, and therefore not so liable to be scratched; which is a ready conductor of heat, and therefore cooler than glass; and which is of high refractive power, and therefore, focal length for focal length, lighter than glass. On the other hand, pebble is expensive, and it is also bi-refringent, so that, unless it is cut in planes parallel to the axes of double refraction, the pencil of light is split into two portions. It is true that in spectacles of low power this defect would hardly be noticed; but it is better in all cases before purchasing to test the lens yourself by placing it between two plates of tourmaline or selenite (all opticians keep a small hand clip for this purpose), when you will find, on holding the glass to the window or sky, that if the spectacles are pebble the light will be polarised, and if they are correctly cut that the coloured zones will be circular. Tinted glasses without refractive power are very useful as shades and protectors, and of these, blue spectacles, which exclude the orange or irritating rays of the spectrum without interfering materially with definition, are the best; French grey or London smoke glasses have a similar effect, but shut out too much light: yellow glasses, which act like bright light, have proved beneficial in certain cases of amblyopia; and green spectacles, which absorb the heat rays, are necessary for furnace tenders and those who are exposed to the excessive glare of a tropical sun; while red glasses enable the colour-blind to get over their great difficulty of distinguishing between red and

FIG. 9.

green. In order to shut out side lights these coloured glasses are curved in some instances sufficiently to give them slight magnifying power, a property specially objectionable in cases of myopia. The exclusion of light is attainable without this drawback, by sides, and also by filling up the margins with crape or wire gauze. (Fig. 9.) Shells, which shut out all light and at the same time permit

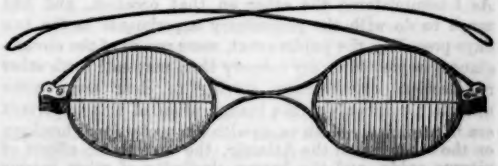
FIG. 10.



the patient to open his eyes just as he might in a dark room, have recently been devised by Dr. Wicherkiewicz, and enable patients who require to be treated in obscurity at the same time to enjoy society and take necessary exercise.[7]

Gentlemen, Voltaire used to say that the nose was made solely for the purpose of supporting spectacles, and certainly

FIG. 11.



the kind of frame is determined in each case by the shape of that organ. For instance, for flat faces the X-shaped bridge is best adapted, as in Fig. 11; while the K-shaped (Fig. 9) suits ordinary features; and the C bridge (Fig. 10)

[5] In orthoscopic lenses the two elements—a sphere and a prism—are so combined that they are coincident in their action; that is, the prisms produce convergence of the visual lines exactly at the focus of the lenses, and their orthoscopic character may be demonstrated by throwing the light of a lamp with two such lenses (fixed in a spectacle frame at a certain distance apart) on to a screen, when only one image of the flame will be produced. Mr. Carter recommends the following combinations: a thirty-two inch convex lens with a prism of 4½ deg.; a twenty-two inch with a prism of 6 deg.; one of twenty inches with a prism of 7½ deg.; and one of sixteen inches with a prism of 9 deg.; the centres of the glasses being in each case placed exactly sixty-two millimetres apart.

[6] London: Macmillan and Co., 1877.

[7] May be obtained from Krohne and Sesemann, Duke-street, Manchester-square.

is suitable for those with prominent nasal organs. The glass itself is variously shaped, being round, oval, or semi-lunar (Fig. 10), the latter form being specially adapted for the presbyope who wishes to look over his glass; while the pantoscopic, Franklin, or "verres à double foyer," are specially suited for those who are both myopic and presbyopic, who have undergone cataract extraction, or who, for other reasons, require glasses of different powers, for distant and near objects (Fig. 11).

Glasses may be mounted on frames and nose clips of all sorts and patterns, and I have here a very ingenious contrivance by Messrs. Pickard and Curry, which may be used instead of spectacles in cases of astigmatism. I do not think I need say more on this occasion about spectacles. I must however, in conclusion, remind you that such aids to vision were practically unknown in this country until the reign of Richard II., and that until a very recent period thousands of those who became blind from cataract and other curable diseases remained in darkness for the rest of their days.

"Oh, dying years! Oh, flying years!
Oh, days of dimness, nights of sorrow!
Oh, failing sight! Oh, lessening light!
Oh, morn forlorn and sad to-morrow!"

Now, thanks to such institutions as the one in which I have the honour to address you, few escape operation; and so slight is the disability afterwards, that I am enabled to show you this small coin, within the narrow circle of which has been inscribed the Lord's Prayer by a patient who was formerly blind from cataract; also this beautiful landscape, which was painted for me by a patient two years after undergoing extraction for cataract in both eyes. There is also in the waiting-room at the present moment an elderly lady who still gets her living by mending lace, on whom I operated for double cataract twelve years ago; and some of you had an opportunity of seeing at our last meeting a gentleman who for the last eight years has filled the office of bookkeeper in a large factory after undergoing extraction in both eyes ten years ago. Such triumphs of our art would not have been possible without the added aid of spectacles, and much as we may and do regret the necessity (which comes to us all) for their use, you have only to realise how helpless we should be without them in order to appreciate the immense boon conferred upon us by those philosophers whose unselfish devotion to science has perfected the art of selecting glasses, and enabled us not only to preserve and strengthen and improve the sight in youth—not only to heighten the colour, brighten the light, and bring back the fading outlines of minute objects in advancing years,—but also to secure after surgical operations results which are little short of miraculous, and which without them would have been impossible, unsatisfactory, or only half complete.

ON THE

INTRODUCTION OF ETHER INHALATION AS AN ANÆSTHETIC IN LONDON.

BY WILLIAM SQUIRE, M.D., F.R.C.P., &c.

THE success of the first attempt in this country to prevent pain by the inhalation of the vapour of ether during a great surgical operation had much to do with the rapid adoption of this means of producing anæsthesia. As I administered the ether on that occasion, and had much to do with the preliminary experiments in the two days preceding the public event, some record of the circumstances impressed on my memory then may call forth other recollections or references serving to clear away some uncertain points about the inauguration of this important era in medicine. With us, as with our professional brethren on the other side of the Atlantic, the anæsthetic effects of nitrous oxide, and the known similarity of ether vapour when inhaled in the same way, led to the practical discovery of Morton in America and to the ready adoption of that discovery here. The effects of both were shown in the chemical class, when I entered, at University College, once in the course; the ether inhalations could be repeated by pouring the fluid on to a folded handkerchief, while the supply of gas was limited. To a certain extent I could control the tendency to move and talk excited by the ether; on losing this control after a larger dose, I knocked my knuckles against the desks without feeling pain. This was in my first winter session (1846), and it came to mind on first hearing of Morton's discovery.

On Saturday, Dec. 19th, 1846, I heard from Liston of this great news from America of a painless amputation under the influence of ether, vaporised from a sponge and inhaled from a glass vessel containing it. This was in a letter to Dr. Boott, of Gower-street, from Dr. Bigelow, senior, of Boston, with an extract from a paper read by his son. (See the first number of THE LANCET for 1847, p. 5 *et seq.*) My duties at this time were chiefly at the College, but I frequently attended the surgeons' visits to the hospital, and mostly followed Liston. He was a friend of my uncle, Mr. Peter Squire, and I had other introductions to him. On these occasions Liston would often bring me through a crowd of students to the bedside of some sufferer whose case was of interest. One man I remember well, with light hair, wasted form, and pale, worn face, who had strumous disease of the knee joint, with much suppuration; ulcerated cartilage was indicated by starts at night, which prevented sleep, in spite of all soothing means and of all mechanical aids, so that amputation was imperative. But the patient felt unable to undergo this operation. He had once consented, and then at his urgent appeal it had to be deferred. On his Saturday's visit Liston mentioned to me the letter he had received, and its bearings on this particular patient, asking me to confer with my uncle as to the best way of ensuring success. Mr. Robinson, a dentist in Gower-street, was said to have extracted a tooth without pain, but no great success attended a second trial. Liston took me to the other end of Gower-street with some ether from the hospital, but whether to the house of Dr. Boott or to that of Mr. Robinson I do not clearly remember. The glass vessel used was too small, and I believe Mr. Robinson afterwards used the sponge alone, covered by a folded cloth, with more success. Mr. Liston took me on to Oxford-street, where ether was given in this way to one of the assistants. Some cough was excited at first; then more ether was required; some excitement occurred, and the insensibility that followed was not of long duration, but it was sufficient to prevent any signs of pain from a pinch or prick. There was a strong smell of ether in the room, and it seemed that with a better store of vapour and less expenditure of ether a more steady effect might be produced, and Liston said that if this could be ensured and maintained for one minute he would amputate in the case already mentioned on the following Monday. The necessity for a glass or other vessel to contain the ether was obvious. My uncle became much interested in the object to be attained, and with his energetic assistance a suitable inhaler was improvised. This is substantially the apparatus now preserved at University College Hospital. A large, broad-based, conical glass vessel, with openings at the top and at the lower part, was found; a good-sized tube was fitted to the side opening, a sponge was introduced from the upper opening to receive the ether, and a smaller glass vessel, with sponges on which ether could be poured, was fitted into the top. Before adding any ether we found that breathing could be easily carried on through the apparatus when the free end of the tube was brought near to the mouth and encircled by a folded towel held close to the face, and covering both mouth and nose. Several trials convinced me that it was better to begin with a good supply of vapour, at first holding the tube and its conical mask a little away from the mouth, then holding it close while a good breath was drawn, and again removing it slightly during expiration. In this way very little excitement was noticed. In many inhalations on myself under Liston's supervision some subjective sensation of light and increased throbbing in the ears were experienced; then all senses but that of hearing were lost, and I could hear the voices of my friends in some of the trials after I had stopped inhaling, while insensible to pain. On one occasion a puncture was made under my thumb-nail, of which I knew nothing at the time, though it was painful afterwards. Mr. Taylor, the chemist, of No. 13, Baker-street, assisted at these experiments, and was the first to undergo a more prolonged unconsciousness under my management. More than a minute from the completion of the inhalation was allowed to elapse before his sensibility to pain was put to the test; complete anæsthesia continued for two or three minutes. Liston was informed of this further success at once, and called upon Mr. (now Sir) Edwin

Saunders on Sunday morning to see if the effects could be further tested that day in tooth extraction; indeed, a volunteer, who wanted his tooth drawn, was found, but after a whiff of ether he said the toothache was lessened, and he declined to proceed further. I again took ether myself and gave it to others, while Liston observed the degree of anæsthesia produced and the duration of it. This was increased and prolonged by replacing some of the upper sponges, chilled by evaporation of the ether, with fresh sponges and ether, and by keeping the mouth and nose closely covered during the latter part of the inhalation.

Some mesmeric deceptions by the O'Keys at University College Hospital, which had been recently exposed by Mr. Wakley, were likely to cause any new attempt at avoiding pain to be regarded with suspicion. Liston, therefore, looked into every detail for himself before arranging for the operation next day under ether. His decision was soon widely known; letters were written that night, and messengers sent next morning, to those likely to be interested, and a large assembly filled the operating theatre at the appointed time. Mr. Cadge, of Norwich, tells me that Sir John Forbes, as editor of the *Medico-Chirurgical Review*, living not far from Liston, was informed by letter; I am under the impression that Mr. Wakley was also written to. Messages were sent on the Monday to Dr. Boott, of Gower-street, and to Mr. Robinson, but I believe neither was able to be present. Dr. Thomas Park—now living, since his retirement from the army, at Leamington—went himself, at Liston's request, to Mr. Robinson. Dr. Ransom, now of Nottingham, was then Liston's house surgeon. Mr. Cadge, who was acting as Liston's assistant, was present at the operation, and agrees with me as to the few remarks made by Liston at the time. In a short address he spoke of the letter from America, of the advantages to be hoped from anæsthesia, of the weak condition of the patient, hardly able to sustain the operation without this expected aid, and asking the forbearance and quietude of all present. The house surgeon then saw the patient carried in and properly placed, a handkerchief lightly covering his face. I had the ether apparatus on a small table brought close to the left side of the head, and spoke to the patient. He knew my voice, as I raised the lower part of the handkerchief to bring the end of the tube near the mouth, directing him to draw his breath deeply. In no case since have I seen ether taken more easily and quietly; the respiration soon became deep and regular; his face was flushed, instead of pale, when the handkerchief was removed and a folded cloth instead, enclosing the free end of the tube, covered the mouth and nose. When this was held closely I am inclined to think the exhaled ether was rebreathed for a time, warming the evaporating sponge surfaces, and so increasing the supply of vapour. When unconsciousness was complete (I remember no stertor) the apparatus was moved back a little, and no more ether was given. No twitch or sign of pain was made by the patient as the operation began, and in twenty-eight seconds the limb was off. Here a short pause occurred. It was intended, had the effects of the ether been soon over, to keep the main artery under pressure and to ligature the vessels in another room; but a placid sleep continuing, the vessels were all tied, and wetted lint was placed between the flaps, which were brought together and lightly covered before consciousness returned. Then the patient, rousing as if from ordinary sleep, was heard to say: "Take me away; I can't have it off; I must die as I am"; while murmurs of satisfaction passed round the theatre. When asked as to pain, he said it seemed more in the toes than the knee, and, until he was raised to see for himself, could hardly believe the limb was gone. The expressive smile of surprise and delight with which he then looked around is deeply impressed upon my memory. A marked change for the better in the patient's condition began at once, and led without interruption to a good recovery; the stimulus of the inhaled ether was directly beneficial.

It seems barely credible that an amputation of the thigh should be carefully completed, so far as the removal of the limb is concerned, in less than half a minute; yet in this case only twenty-eight seconds elapsed from the first use of the knife to the last touch of the saw. I noted this particularly, for I had intended to observe how long the insensibility would last, but was so astonished at the celerity and ease of the operator's movements that I forgot my original purpose. The problem was no longer in how short a time can an operation be performed, but for how long can anæsthesia be safely and easily maintained. There can be little doubt that the care and precautions taken in private under Liston's observation had much to do with the success of the first public trial of anæsthesia by ether, with the wide use it soon obtained, and with the strong conviction Liston formed of its very great importance. I took the apparatus to Mr. Liston's house later in the day, having meanwhile used it both in the hospital and in my own rooms close by. I hear from Mr. Cadge that Liston got him to take ether the same evening, and that he could think and talk of nothing else. My uncle only half liked the inhalation experiments; he did not give the vapour, but said he would find glass and be responsible for the purity of the ether, which he very liberally supplied. Some of it was *washed* ether, any admixture of alcohol being thus removed. Christmas interrupted my too frequent use of ether. On my journey home to Bedfordshire after a week of these experiments a snowstorm near Luton obliged me to be taken inside the coach, as these inhalations had produced a sensitiveness of the bronchial surface that I had not previously experienced. On my return, I gave ether at several places for a short time, and sometimes for Liston. Dr. Snow gave it for him after the winter session was over. Mr. Clover soon followed, and continued to administer both ether and chloroform upon becoming the resident medical officer to University College Hospital.

Orchard-street, W.

APOSTOLI AND HIS WORK.

By HORATIO R. BIGELOW, M.D.

OPINIONS are valuable and carry weight if the source originating them is of recognised intelligence. Still, fortunately for science, opinions may be only individual conceits—purely theoretical deductions, or ill-judged expressions, which are defaced by preconceived judgment. When opinions are the outcome of a logical weighing of evidence and fact, irrespective of all preconceived mental processes that imply definite personal bias, they become facts of record and facts of large-spread potentiality. Too often medical literature recounts the history of a valuable idea buried under the opprobrium which an ill-timed criticism, a sceptic laugh, or a jealous sneer has levelled at it. Far too often opinions are merely a source of ventilation for egoism. No opinion, emanating from any source whatever, can be convincing unless all the points with which it deals have been covered; and no clinician is a clever one who forgets the classic teaching that an exception proves the rule. No judge can be a fair exponent of legal justice who overweighs his charge with his own preformed conclusions to the detriment of an unbiased consideration of the argument. No scientist is worthy of credence who repudiates a new idea simply because it militates against ideas of his own which previously were in favour. The ethical test of truth must be within the observer himself. Upon this test he must bring to bear an honest subjective condition, an honest personal experience, and an honest study of evidence. The subjective status is the most difficult division, since it is almost impossible to find any scientist or professional person who can absolutely disrobe himself of all preformed judgment. Happily, if the observer be conscientious, this will be more than met by (1) his own experience with the problem in dispute; and (2) his study of the evidence adduced and offered by others in defence or condemnation of the same. When a multitude of upright men of sound judgment, of large intelligence, and reliable scientific accuracy report success resultant upon a given plan of treatment, we cannot believe them all to be victims of hallucinations, of enthusiastic and hastily-formed opinions, or of a deceit practised upon them by the originator of the plan. Objections may be raised (1) by those who argue upon theory and dilettante logic—general principles they call it; (2) by those who have tried the plan and failed. Theory pure and simple carries no weight whatever. It is a valueless, lifeless subjectivity, without form and void. As opposed to fact it is like the baby's wail. Theories deducted from facts supposed to be similar to the fact in question are of the greatest value; but who can guarantee that the facts *are* similar? Theories based upon supposed similar facts, which do not coincide with the facts of observation offered in evidence, presuppose either a want of similarity or a want of knowledge in building up the

theory. In regard to the objections of the second class—those who have tried the plan and failed,—we must first eliminate all source of error in order to give the objection a hearing. These errors may be: first, the plan was not carried out in all of its details *exactly* as the originator demanded; secondly, the number of cases treated was too small to form any opinion *pro* or *con.*; and thirdly, the operator was not himself sufficiently well instructed in the principles of the science directly bearing upon the plan. If the aggregate of the two classes of objections, theory and failure, after all sources of error are eliminated, should be equal to the sum of the evidence of the supporters, then further evidence will be necessary before any judgment can be rendered. I take it that this is plain reasoning, to which no one can object. It bears equally upon both sides. So much for the question at large. Granted the fact established favourably, the side issues that arise—those touching upon personal comfort, upon the proper estimate of life—must be settled each one for himself. If I assert that I have seen a given result follow the administration of a given drug, my professional brother would hardly be so impolite as to dispute me outright, although he might think me to be a dupe of my own faulty observation. Still there would be the possibility of his repeating the same experiment. But if, immediately following this one case, I should proceed to argue for a large number of cases, or to draw many general conclusions, he might more properly object to my reasoning.

All this by way of preface—a necessary one I believe it to be, since men's fancies run in strange and unwonted grooves in the art and science of medicine—to the discussion of a question which I believe to be of mighty importance, of an importance second to none in our profession, which has arisen within the last fifty years. It is fortunate that one creeps first, and walks later on. When I commenced my crusade many years ago on behalf of conservative gynæcology I stood almost alone. When I argued that electricity, hygiene, and massage would do many things which the knife was called upon to do, I had not a sufficient array of facts to back my argument up, and I was somewhat mocked. But with the advance of years, as compensating perhaps for the aches and pains that fasten upon us, came riper experience, larger observation of fact, a study of the cases which other workers in a similar field had given to the public, until finally it culminated in a personal association with Dr. Apostoli, a personal investigation of his cases (reaching nearly 2500), and a personal witnessing (for four hours at a time and three times a week) of the large number of cases that came to his clinic in the Rue du Jour. I was distressed to read the address of Dr. Bantock before the British Gynæcological Society, because he vainly attempted to stay the onward march of scientific fact upon unscientific grounds. What Dr. Bantock has achieved no man may gainsay. He stands out eminent among abdominal surgeons. His results are beyond all praise. I have the most profound respect for him and his work. This he knows full well. It distressed me, I repeat, because to those who have neither the time nor the patience to read between the lines, or to weigh well the factors that go into the fashioning of a coherent argument, it might carry a certain prejudice against the most valuable agent in conservative surgery. What I have seen Apostoli do, Keith has done (a very Ajax among us in brains and work); Savage is doing; Engelmann has done; Martin of Chicago has done; Sir Spencer Wells, whose name must carry reverence for the nobility of his deeds, has done himself, and seen done; W. W. Webb has seen in hundreds of cases here in Paris; and scores of observers, all the world over, are doing and repeating every week. The great, the salient objection raised by the obstructionists is that of its applicability to the treatment of uterine myoma. No honest man of ordinary intelligence who has made use of Apostoli's method, or who has seen it used, can possibly deny its absolute power to arrest the most dangerous symptom—hæmorrhage; no honest man who will read his numerous cases, some published and the others always to be seen at his clinic, in which this fact is on record, but must admit it. It is beyond all dispute that galvanism rightly applied will arrest hæmorrhage from uterine myoma. In all of its clinical symptomatology is there a point of greater gravity? For what purpose does the surgeon perform the operation of Mr. Lawson Tait of Birmingham (but the propriety of which operation I question seriously and with honest intent) to arrest hæmorrhage? If galvanism could offer nothing more than the entire alleviation of the salient features in the symptomatology of uterine myoma without endangering in any degree whatever the woman's life, it should receive from us all possible honour. Why endanger a woman's life?—and history shows us that in the hands even of the most expert operator in the world women will die from opening the abdomen for any cause whatever. Is there a woman living who would run the risk of her life simply to be rid of a tumour which gave her no discomfort? But let us examine a step further. Galvanism will arrest the hæmorrhage. Even Dr. Bantock must admit this, or confess that he has either not practised it, or perhaps has had no time to read up the published observations of men of unimpeachable honesty. I assert that it will diminish the size of a myoma in certain cases without endangering life. I have seen it done, and have read of others doing it. There are cases reported in which septic peritonitis has resulted from galvano-puncture. My explanation is that the puncture was carried too deep, and was not done as Apostoli does it. I am also willing to admit, and I gladly admit it, that we are as yet only upon the threshold of our knowledge in this especial line, and that we need more cases and a much riper experience. I do not yet know that it will dissipate the tumour; I have not seen such an instance; but I believe the time to be in the near future when we shall be able to do even this. I only claim now that it will arrest hæmorrhage, dissipate pain, improve nutrition, and diminish size without danger to life. Is there anything known to our science which can offer so much? To arrest a uterine hæmorrhage by Apostoli's method, it is *absolutely* necessary that the *entire membrane* inside the uterus should be *equally* and *uniformly* cauterised, and that a sufficient number of elements should be used. A current of from 100 to 300 milliampères intensity can generally and usually be used with safety. I have seen the latter employed many hundreds of times without any discomfort to the patient. It will, perhaps, be better to quote directly from Apostoli's writings.

"It is easy to make this accommodation in regard to the uterus. We wish to produce a vigorous cauterisation, without increasing the general interpolar intensity beyond the point easily supported: Lessen the intra-uterine electrode by a third, or fourth, or fifth of its original length, and forthwith the cauterisation or topical action at the seat of contact will be thus made four or five times more powerful. I therefore lay it down as a rule in severe hæmorrhagic cases, where it is expedient that a patient should bear a high dose of electricity without much suffering, that the intra-uterine electrode be reduced to a very trifling length; though, under such circumstances, it is essential that it be passed from one extremity of the cavity to the other, so that every part of the mucous surface is successively and completely cauterised. I began my operations in 1882 with a metallic sound, bare only at the extremity. In my first essays in cauterising the mucous membrane of the uterus I had no other. Now I have improved the instrument, and my electrodes of carbon, though of diferent sizes, are all of the same length—two centimetres and a half. The metallic stem of this instrument is covered with caoutchouc, and on it at distances of two centimetres and a half, lengths which correspond with that of the carbon electrode, I have slight circular grooves marked. The electrodes are applied as follows. 1. After disinfection in some strong antiseptic solution, in order to secure full cauterisation the instrument is driven as far as it will go, if possible to the end of the uterine cavity. 2. When the electrode is in this position, the highest bearable intensity of current is turned on, and we judge of the necessity of augmenting by the effect of previous operations. The intensity must be increased when the electrodes of larger volume, and consequently of more surface, are taken into use. 3. The first stage of cauterisation being finished, the instrument is withdrawn just as much as the length of the carbon, and in that situation the second cauterisation is effected the same as the first, and so on, changing the position of the carbon till all the interior of the uterus is cauterised section by section. To do this methodically, the index finger is passed into the vagina, and the pulp and nail pressed on to one of the circular grooves of the stem. While in shifting the seat of action the other hand withdraws the sound, the index finger in the vagina remains immovable, and gives information as to the extent of change of position of the electrode by the touch of the following mark. 4. It is better, if possible, to cauterise the entire cavity at one sitting,

letting each sectional cauterisation last from three to five minutes, as the gravity of the case and the size of the cavity may show to be proper. 5. In continuing the treatment, the duration and force of the current must be made to depend upon the effect produced by the cauterisations at previous sittings. 6. It is well to be aware that when the cauterisation of the neck of the uterus is once made, the electrode, in passing through the internal orifice for further action, will occasion much more pain. I believe I was the first to mention the fact that the neck of the uterus, which is so little painfully affected by ordinary caustics, the hot iron, or the knife, is, on the contrary, very sensitive, and much more so than the body, to the electrical current, either induced or continued. I think, in conclusion, I may say that it will henceforth be admitted we have in electricity a most powerful means of safely treating fibroid tumours, and that it will in future be felt as a duty by the surgeon to make use of it before adopting other measures. Carrying out my method as I have directed, I am convinced it will yield to others the same new and interesting results that it has been my good fortune to witness."

For the relief of pain, localised uterine pain due to interstitial compression, or extra-uterine pain (parametritis, perimetritis, &c.), we try, first, faradisation (and Apostoli was certainly the first to point this out) with currents of high tension. In simple ovarian neuralgia it will always be valuable, but of no use in the suppurating form of peri-uterine inflammation. Here we use a galvano-chemical caustic, or negative galvano-puncture. But I have seen cases of this kind get better, and rapidly better, under the positive galvanic electrode within the uterus, and the negative attached to its bed of potter's clay resting upon the abdomen. During the spring of this year I saw Dr. Engelmann, of St. Louis, demonstrate Apostoli's method, in Martin's and Olshausen's clinics in Berlin, in many of the commoner cases which apply for treatment, and which try the resources of the gynæcologist to the utmost—e.g., chronic cases of perimetritis with much posterior tenderness, ovarian pains, &c.,—and in almost every instance the patients experienced very great relief. There will ever be cases which can only be permanently benefited by the aid of the surgeon; and since this is inevitable, I hold it to be the clear duty of every philanthropic person to relegate to the man who by experience and intelligence is properly equipped for such work, so that this craze of abdominal surgery which has taken possession of the profession at large may be checked. There will always be room for such men as Wells, Keith, Bantock, Savage, Thornton, Tait, Goodell, and others; but if every practitioner thinks himself sufficient for this the highest *rôle* of surgery, it will require more than the brilliancy of these brilliant men to counterbalance criminal records of unnecessary operations and bad results.

Paris.

BACKWARD DISLOCATION OF THE FINGERS UPON THE METACARPUS.[1]

BY WILLIAM H. BATTLE, F.R.C.S.,
ASSISTANT SURGEON TO THE ROYAL FREE HOSPITAL AND TO THE EAST LONDON HOSPITAL FOR CHILDREN.

UNTIL the patient whose case is recorded below (Case 1) presented himself for treatment, and I learned from experience the difficulty occasionally found in the reduction of dorsal dislocations of the proximal phalanges of the fingers, my attention had not been specially drawn to the subject. Dislocation of the fingers is so frequently dismissed in the text-books with a few lines (excepting that of the thumb, which is usually discussed at length) expressive of the ease with which they can be reduced, without a word of warning as to the difficulties met with at times, that there is a general impression in the profession that nothing is easier than to reduce such dislocations. That this is occasionally an erroneous one the notes of such cases which it was my duty to treat when resident assistant surgeon at St. Thomas's Hospital will show.

CASE 1.—On Sunday, Oct. 3rd, 1886, the house surgeon asked me to see a boy who had applied in the casualty department for a dislocated finger, which neither he nor the dresser could reduce. The patient, J. H——, aged ten, said that he had been playing "leapfrog" a short time before, and whilst jumping over one boy's back placed his hands too far forwards, and, missing the back altogether, fell on his hands on the pavement. On examination, the right forefinger was found displaced upwards, backwards, and inwards on the metacarpal bone, the signs of dislocation being well marked. All attempts to reduce it by the house surgeon and myself, with and without the assistance of special apparatus, failed; so chloroform was given, but several attempts at reduction by manipulation were unsuccessful. A tenotome was introduced on the back of the hand above the base of the phalanx to the outer side of the extensor tendon, and the fibrous and tendinous structures to the outer side of the joint divided from within outwards. The dislocation was reduced after flexion, circumduction, and strong adduction, the phalanx returning to its position with an audible click. A pad of collodion on wool was applied to the puncture, and the hand bandaged to an anterior splint. No complication arose, and a fortnight afterwards the boy had perfect movement of the joint and no loss of power. This case presented many unusual features, and, as a result of it, I was led to inquire more fully into the literature on the subject. In my search I was fortunate in meeting with a paper[2] by Dr. Otis of Boston, U.S.A., from which I received assistance. He had unexpectedly met with difficulty and failure in attempted reduction of dislocations of the index finger in two instances, and was led to inquire into the subject. The result, with some references, was given in the reprint to which attention was directed in THE LANCET.[3] The general conclusions to which he came receive additional confirmation from the success attending the treatment of the following cases, and from the more recent writings on the subject, to which I propose to refer later.

It was not long before another, but more serious case, was brought to me by Mr. R. Andrews. As this was one which had been done some considerable time, and would eventually require more serious measures to effect reduction, he was admitted under the care of Mr. Mackellar, who kindly gave me permission to treat him.

CASE 2.—J. H——, aged eight, was admitted on Oct. 20th, 1886, having been unable to flex the left forefinger since a fall on the hand, when the fingers were outstretched, between seven and eight weeks before admission. Since the accident several unsuccessful attempts had been made to reduce the displacement. On the afternoon of admission, chloroform was administered and an attempt made to reduce the dislocation, but without success. An attempt was then made to reduce it after subcutaneous section of the glenoid and internal lateral ligaments; this was also unsuccessful. A lateral incision was then made along the outer side of the joint, and another shorter one at right angles to it, and the interior of the joint exposed. Considerable changes had taken place in the joint, the head of the metacarpal presenting, instead of the usual shining cartilaginous appearance, a dull fibrous, roughened surface. This could hardly be separated, and was probably a displaced adherent glenoid ligament. With some trouble and the use of the point of the scalpel this was separated to an extent permitting the replacement of the phalanx. The wound was closed with silk sutures, and a small piece of silk introduced for drainage. The joint was opened under the spray, and iodoform and iodoform wool used for the dressing. A splint was applied. The wound was dressed next day, and again on the 23rd, when it was almost healed. He left on the 24th, with a splint still applied. In less than a week the finger was moved under chloroform, and could be fully flexed. This was repeated easily in a few days, but the parents did not like the passive movement, as the child made an outcry, and elected to have nothing further done; they were satisfied with the improved appearance of the hand. From the ease with which we could move this joint when the patient was last under chloroform, there seemed little doubt that he would regain much use in it.

CASE 3.—A satisfactory result was more easily obtained in the case of a strong, healthy stonemason, who applied at the hospital on April 26th, 1887, suffering from injury to the left hand. This had been caused by the fall of a heavy stone from a crane on the back of the hand. On examina-

[1] For permission to publish these cases I am indebted to Mr. Croft and Mr. Mackellar.

[2] Boston Medical and Surgical Journal, Sept. 1866, p. 203.

[3] Vol. ii. 1886, p. 1190.

tion it was found that there was dorsal displacement of the left little finger, the metacarpal bone being very prominent in the palm of the hand. Both the dresser and the house surgeon had made ineffectual attempts to reduce the displacement by traction and flexion. The finger returned at once to its position after the phalanx had been fully extended, carried backwards, pressed against the metacarpal bone, and then firmly flexed, without anæsthetic. The pain, which was considerable before reduction, disappeared at once.

CASE 4.—The result in this case was equally good. On Aug. 4th, 1887, a girl aged thirteen applied in the casualty department with a swollen hand. On the previous day she had been struck on the back of the hand with a broom handle. The dorsum of the right hand was much swollen, red, very painful, and tender. Posteriorly the second metacarpo-phalangal joint was much obscured by the swelling; in the palm the prominent head of the metacarpal bone could be easily felt. This was reduced in my presence by Mr. Staveley, the house surgeon, after full dorsal flexion, pressure of the phalanx on the metacarpal bone, and palmar flexion, reduction being effected, to the delight of the patient, with an audible snap. The hand was placed on a front splint, and lead lotion applied. In a short time the swelling disappeared, and the finger became quite as useful as before the injury was received.

I have considered it worth while to publish Cases 5 and 6, which were dislocations of the thumb, as they illustrate important points in these dislocations as regards treatment.

CASE 5. *Dislocation of the thumb backwards; subcutaneous division of the short flexor; reduction.* (From notes by Mr. H. Hudson, dresser.)—C. H——, aged twelve, a paper-boy, came to the casualty department on Wednesday, Sept. 15th, 1886, stating that he had fallen down upon his hands and had hurt one of his thumbs, it being straight out at the time. The proximal phalanx was dislocated backwards so as to form an obtuse angle with the metacarpal bone. It could be brought into position again without much difficulty, but immediately returned. The head of the metacarpal bone could be seen and felt at the front of the joint. Reduction was attempted by manipulation and traction combined, without success, by those on duty. Ether was then given, and attempts were again unsuccessfully made, the American forceps being also employed. A tenotome was then inserted and the inner tendon of the flexor brevis pollicis divided, without success. It was only after division of the other head of the muscle also that the joint could be placed in position. Collodion was applied to the wound, and the thumb well bandaged into the palm; the forearm and hand placed on a splint. Four days later the wound had quite healed, and he had had very little pain. The splint was again applied after gentle movement of the joint. He was asked to come up again, but did not do so. One may, however, probably conclude that the result was satisfactory.

About nine months later a little girl was brought to the out-patient department and transferred to the care of Mr. Mackellar, who kindly allowed me to act for him. The case is as follows:—

CASE 6. *Dislocation of the right thumb at the metacarpo-phalangeal joint of five weeks' duration; tenotomy; passive movement; recovery.*—E. M. C——, a girl aged six, was brought to the hospital on June 13th, 1887. Her mother complained that the girl had received an injury to the thumb through falling on her hand five weeks previously, that the "doctors" said the child had put out her thumb, but they had been unable to reduce it. Examination revealed a typical displacement at the metacarpo-phalangeal joint, there being no swelling or tenderness to obscure the displaced ends. Reduction under chloroform was attempted by manipulation, but without success. A tenotome was introduced to the outer side of the extensor tendon, and an attempt made to reduce the displacement after division of the outer head of the flexor brevis, and any portion of the glenoid ligament which might be lying on the dorsum of the metacarpal bone. Reduction was then effected by extension, rotation, and adduction. The wound, which was a mere prick, was closed with collodion, and the thumb flexed and bandaged into the palm. She was allowed to go home. The next day she was rather feverish, and had passed a somewhat restless night, complaining of pain in the thumb. She had also vomited; this was probably due to the anæsthetic. Two days later there was no tenderness, and she had slept well. Four days after the operation the bandage was readjusted. At the end of six days the thumb was gently flexed and extended. There was considerable tendency to ankylosis, and on the ninth, twelfth, seventeenth, and twenty-fourth days chloroform was given and the thumb vigorously moved; after each procedure there was some swelling, but no splint was applied, the mother using oil and rubbing and flexing the joint between her visits to the hospital. On the twenty-seventh and thirty-first days it was moved without chloroform, the movement being fair. A week after it was found to move easily under chloroform, and when the child was seen later she could herself flex and extend the joint. There was no tendency to lateral displacement.

(To be concluded.)

A CASE OF

ECTOPIC FŒTATION (ABDOMINAL);

ABDOMINAL SECTION; RECOVERY.

BY H. G. PLIMMER, M.R.C.S. ENG., &c.

M. A. C——, aged thirty-three, came under my care on Feb. 19th, 1888, with retention of urine. Her history was as follows. Her mother died of phthisis; father and two sisters living. She was married when sixteen years old, and just after she was seventeen she was confined with a female child, which lived fifteen years. During the sixteen years which have elapsed since the above-mentioned confinement she had not been pregnant, nor had she had any miscarriages. She has always had good health, and was quite regular up to October, 1887. In the early part of November, 1887, she menstruated, but very much less than usual. Towards the end of 1887 she suffered from pains in the abdomen, which became so bad that on Dec. 26th she was admitted into Guy's Hospital. She was not examined per vaginam, but was treated with sedatives, and was sufficiently relieved to be discharged in a week. On Jan. 17th, 1888, she went to the Soho Hospital, where she was attended for hæmorrhage for two or three weeks, which got better.

When I saw her on Feb. 19th, she was in great pain (temperature 100·8°; pulse 114), and had not passed urine for twenty-six hours. I drew off thirty ounces of urine, and used a catheter for the following two days, after which she was able to micturate, but with difficulty. She had for some time suffered from sickness, which, however, yielded to sedatives. She measured at this time thirty-two inches round the abdomen at the level of the iliac crest. The areolæ round the nipples were very dark, and there was a quantity of mucoid fluid in the breasts. On examining the abdomen, two tumours could be felt: one occupying the right inguinal region; the other, smaller and harder, just to the left of the middle line above the pubes, apparently about the size of an orange. There was a distinct depression between the two. Per vaginam, the os could be felt with difficulty very high up just behind the pubic bone; it was patulous, and I passed a small elastic catheter for four inches. Bimanually, the tumour on the left side was continuous with it. The posterior cul-de-sac was filled up with a firm tumour, round in shape, fixed, and painful; this was continuous with the tumour on the right side. The patient was seen also by Drs. Sidney Turner, J. H. Galton, and Deyns, and a probable diagnosis of ectopic fœtation was made. It was decided to keep her at rest, and wait. However, she would not rest, and on March 17th she again had retention of urine, and required catheterisation until March 27th. She had acute pain during this attack, and some peritonitis, with a temperature varying between 99·8° and 102·4°; there was also a dirty sanguineous discharge from the vagina, which ceased as she got better. Still she could not rest until May 29th, when she was seized with acute pain in the abdomen and attacks of vomiting. She then went to bed, and did not get up again until Sept. 30th, after abdominal section had been successfully performed. Opium was given continuously. The fœtal limbs and movements could now be easily felt through the abdominal walls, and the heart sounds detected. On July 20th, spurious labour pains came on, which lasted at intervals for three days; there was also again a sanguineous discharge. After this the former pain became worse, and the opium had to be increased to thirty-minim doses every four hours. The temperature also, from this time, remained

above normal, often being 101°. The urine was scanty and of deep colour. The abdomen was very tender, and at times very distended with flatus. On Aug. 27th she had a rigor. Temperature 103°; pulse 118. She had wasted considerably the last four weeks, but the abdomen measured thirty-seven inches at the level of the iliac crest. The tumour on the right side extended upwards to the level of the seventh rib, and over the middle line; that on the left side (uterus) reached nearly to the umbilicus.

No sign of fœtal life having been detected since July 20th, and the symptoms having become urgent, it was decided to perform abdominal section without further delay. Accordingly, on Aug. 28th the room was cleaned and washed with peppermint-water (one ounce to one gallon), and on the 29th, with the assistance of Drs. Sidney Turner, Deyns, and Prangley, the operation was performed. Chloroform having been administered, I made an incision three inches and a half long between the umbilicus and pubes, which I had later to enlarge upwards to the left of the umbilicus. On opening the peritoneum, the uterus was seen pushed to the left, and the sac immediately in front filling the incision. There were a few anterior and lateral adhesions, which were easily broken down. The placenta was found to be attached to the anterior wall of the sac, and as no place could be got at where the fœtus was not covered by it, an incision was made into the sac through the placenta. Copious hæmorrhage followed, and I as quickly as possible separated the placenta from the sac and extracted it with the fœtus. The bleeding points over the placental attachment were then seized; torsion was used to four, four were tied with catgut, and six of the largest were tied with carbolised silk, the ends of which were left long. In separating the placenta the sac was torn in three places. The omentum was adherent to the upper part of the sac, and was ligatured, separated, and returned. The sac and pelvis were then irrigated with plain water at 110°, and the sac was drawn as far as possible out of the wound, cut off to the level of the abdomen, and stitched with catgut to the edges of the wound. Three deep and four superficial silver sutures were put in, and the wound brought together, the ends of the six ligatures, controlling the most important bleeding points, being drawn outside, two at the upper and two at the lower angle of the wound, and two in the centre. A glass drainage tube was put in, and the wound dressed with sublimated wood wool. A half-grain morphia suppository was given, and the patient put to bed, the temperature being 98·6° and the pulse 80. The fœtus was a male, of full size, and macerated. The placenta was very large indeed, and full of hæmorrhages and large clots. Its strongest attachment was in the retro-uterine pouch, and it extended all over the anterior surface of the sac. The tubes and ovaries on both sides looked normal, and we could detect no evidences of rupture of either of the tubes, which were nowhere adherent and had no connexion with the sac.

The patient was kept for eight days upon milk and kreochyle; after that time chicken and bread-and-butter, gradually increasing to ordinary diet. Brandy-and-egg mixture was given from the third to the tenth day; after this three ounces of port wine daily. Medicinally she had one grain of morphia administered hypodermically daily for nine days, then a drachm and a half of liq. opii for eight days, and two grains of quinine thrice daily. There was very little vomiting, and the bowels acted by enema on the ninth day. She passed urine on the third day, but the catheter had to be used at intervals for fourteen days. There was some cystitis, which was relieved by injections into the bladder of a saturated solution of boro-glyceride. One deep and three superficial sutures were removed on the sixth day, and two deep and one superficial on the seventh day. On the fourth day I took the glass drainage tube out, irrigated the sinus with peppermint-water, and inserted a large indiarubber tube seven inches in length to the bottom of the retro-uterine pouch; this was gradually reduced in size and length until it was removed altogether on the nineteenth day. The temperature varied between 99° and 101° for fourteen days, but was never higher than this. The pulse varied from 124 (the day after the operation) to 88, for the first week being about 100. On the eighth day a pinhole opening appeared at the upper angle of the wound, with a little pus oozing through; this I enlarged, and put in a small drainage tube. Next day there was a copious discharge from this opening, and the two ligatures, the ends of which were left out of this angle of the wound, came away. On the twelfth day a large piece of slough was extracted through this opening, probably a piece of the sac, and some more was got away on the sixteenth day. The two openings at the upper and lower angles of the wound then communicated, and peppermint-water was daily syringed through them. The discharge soon became very much less, but a few drops continued to come away until Oct. 8th, when both the openings had closed. As the four remaining ligatures did not come away and could not be got out, on Sept. 24th I twisted the ends with a view of withdrawing them. In each case, however, only the ends came away, so the ligatures have no doubt become encysted, as nothing further has been seen of them. There was no peritonitis after the operation, nor any pelvic cellulitis, the roof of the vagina remaining perfectly natural. There was a discharge from the uterus, on the fifth and sixth days, of a dirty sanguineous fluid. The uterus regained its normal size, and the patient menstruated from Sept. 30th to Oct. 5th. She got up on Sept. 30th, and on Oct. 7th began to try to walk. She continued to gain strength, and on Oct. 20th she went to the seaside. She is now able to get about as usual, and is quite well.

Norwood, S.E.

THE AMERICAN HIP SPLINT.[1]

BY DR. A. B. JUDSON.

IN the present Congress, the first held in America, it will not be thought inappropriate to devote a short paper, chiefly historical, to the so-called American splint for the treatment of hip disease. This apparatus was first described by Dr. Henry G. Davis and Dr. Lewis A. Sayre in the April number of the *American Medical Monthly*, published in New York in 1860. These two surgeons wrote independently, but, by a curious coincidence, they both described a splint which was recognised as an important invention, not only in this country, but especially in Great Britain and France, where it was known as the American splint. Under this name it has been described and discussed by Edwards,[2] Barwell,[3] Holmes,[4] Marsh,[5] Adams,[6] Thomas,[7] Bouvier,[8] Le Fort,[8] Velpeau,[8] Verneuil,[8] Giraldès,[8] Armand,[9] Eugene Boeckel,[10] Hennequin,[11] Monod,[12] and Philopeaux,[13] and doubtless by other eminent European surgeons.

It will, perhaps, be interesting to inquire whether the name "American" has been rightly given to this apparatus. As first described in 1860 it has two important features: (1) a perineal strap or ischiatic crutch-head, for the purpose of keeping the weight of the body from resting on the affected limb, the patient being thus enabled to wear the splint and at the same time to engage actively in ordinary pursuits; and (2) adhesive plaster applied with the view of making traction on the limb. In regard to these two features, ischiatic support and traction by the use of adhesive plaster, the first was not an American invention, nor was it a novelty. Support of this kind had been used for a long time in the construction of artificial limbs, and even in the treatment of hip disease the possibility of so supporting the body had occurred to M. Ferdinand Martin, a woodcut of whose splint is found in Bonnet's treatise on Diseases of the Joints, published in Paris in 1853. But when we come to consider the other remarkable feature of this splint, we recognise a real advance in mechanical surgery, and one which may rightly be called American. The use of adhesive plaster for prehension of the limb in the treatment of fracture of the long bones was an American invention, and the transfer of this device from the treatment of fracture to that of hip disease was first effected in the new splint. For many years it had been the common practice in the treat-

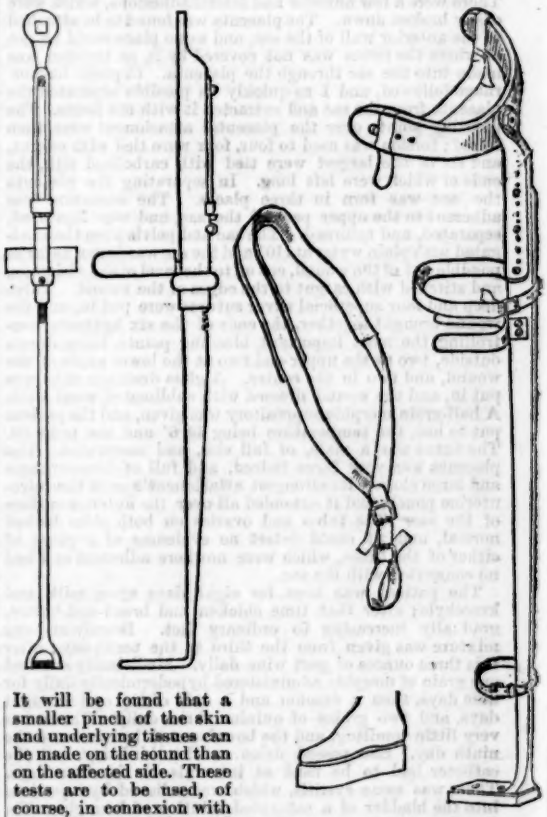
[1] Paper read in the Section of Diseases of Children, Ninth International Medical Congress.
[2] Edinburgh Medical Journal, June, 1861, p. 1118.
[3] THE LANCET, Nov. 7th, 1863, p. 530. Diseases of Joints, second edition (London, 1881), p. 467.
[4] Diseases of Infancy and Childhood, second edition (London, 1869), p. 432.
[5] British Medical Journal, July 28th, 1877, p. 98.
[6] Ibid., Jan. 5th, 1878, p. 10.
[7] Review of the Treatment of Hip Disease, 1878 (preface).
[8] Bulletin de la Société de Chirurgie, 1866, pp. 122, 126, 147, 154.
[9] Thèse de Paris, 1878, p. 27.
[10] Bulletin Générale de Thérapeutique (Paris, 1875), p. 451.
[11] Archives Générales, Jan. 1869, p. 62.
[12] Ibid., June, 1878, pp. 704-712.
[13] De la Coxalgie (Paris, 1867), pp. 261, 262, 284.

ment of hip disease to make traction with the long splint for fracture of the femur, prehension of the limb being made by a gaiter, or a fillet, or handkerchief placed around the ankle. These instruments of torture were supplanted in the new hip splint by the absolutely comfortable and convenient adhesive plasters. Thus we see that the new splint was a combination of an old device (ischiatic support) with an American invention (traction by adhesive plaster); and, as the happy combination was made in America, it is not strange that the courteous attitude of European surgeons towards the surgery of a comparatively new country led them to call the new method the American method of treating hip disease, and the new splint the American splint.

Following the history of the hip splint in this country for the past twenty-seven years, one is amazed at the great number of the so-called improvements that have been made upon it. The most important has been a perfecting of that part of the apparatus which provides for ischiatic support of the body in standing and walking. The first splint did not extend to the ground, but depended on the integrity of the plaster adhesion for keeping the weight of the body from resting on the affected joint. Dr. Edmund Andrews, of Chicago, and Dr. C. Fayette Taylor, of New York, proposed and perfected an extension of the splint to the ground, and thus left but little to be desired as an ischiatic crutch. Aside from this real improvement, although a vast number of modifications and additions have been made, no essentially important changes have been made in this apparatus. Experience and increasing light have shown that certain things which it was thought that the splint accomplished are mechanically beyond its reach, and that some things supposed to be desirable and even necessary to proper mechanical treatment are of no importance whatever. The two things which the splint does to-day, and which it has done ever since the improvement above mentioned—the two functions of the splint, so to speak,—are (1) to make the affected limb a pendent member, resembling in this respect the arm when the patient is erect,[14] which it does as an ischiatic crutch; and (2) to apply traction to the distal member of the joint, which it does by its rack and pinion and its adhesive plaster. Traction protects the joint from the traumatism of motion, muscular or otherwise; and the ischiatic crutch protects it from the traumatism of standing and walking, while the patient runs about and follows the ordinary pursuits of life for the months and years necessary to bring about recovery, with restoration of ability and symmetry so far as may be.

I will close by briefly referring to two points of practical utility. The first is in regard to an early diagnosis, which is especially of great importance, inasmuch as there is reason to believe that, if treatment can be begun sufficiently early, the focus of osteitis in the cancellous tissue may be resolved before the other structures of the joint are involved. Reason for this belief is found in the fact that disease of the joints is comparatively rare in the upper extremity, where a focus, being in a pendent member, may undergo resolution, protected as it is in the nature of the case from the traumatisms which assail the lower extremity in standing and walking. Now, if the lower extremity can be made pendent, as can easily be done by the use of the hip splint, in the very incipiency of articular osteitis of the hip, before the articular contours are changed and before the circum-articular muscles are seriously involved, we may look for resolution of the osteitic focus and recovery without lameness or impairment of motion. To assist in making an early diagnosis, a careful study should be made in a difficult and doubtful case of those limitations in the motions of the joint which become apparent only when the extremes of normal motion are approached. This may be done in various ways. I have found two methods easy in practice and certain in their revelations. The first method applies to rotation, which is a direction in which limitation of motion first takes place. Let the patient lie supine with the feet slightly apart. With the hand placed lightly on the knee of the unsuspected limb a rocking or oscillating motion is given to the whole limb, outward and inward rotation following each other while the toe sweeps through an arc of nearly 180°, the inner border of the foot striking the table, and the outer border nearly reaching that level. This occurs in the sound limb. A similar manipulation of the suspected limb may reveal a slight limitation of rotation, the result of hip disease. The other simple procedure relates to flexion. Let the patient, still on the table, sit up and kiss the knee. By flexing the neck and back and drawing the limb up with the hands, this can easily be done with the unaffected limb, while an attempt to do it with the suspected limb may reveal a slight limitation of flexion indicative of incipient hip disease. Another diagnostic sign, too little thought of perhaps, but of importance in the very early stage, has recently been referred to by Dr. A. J. Steele, of St. Louis, as "a brawny thickening about the joint in front of the capsule or behind the trochanter."[15] There will in some cases be found a condensation of the soft tissues, due apparently to the vicinity of osteitis, not visible perhaps, but recognisable by palpation or pinching with the thumb and finger, and then often not detected except by comparing the two sides.

FIG. 1. FIG. 2. FIG. 3.



It will be found that a smaller pinch of the skin and underlying tissues can be made on the sound than on the affected side. These tests are to be used, of course, in connexion with other diagnostic helps, and with due regard to other conditions which have the power to produce similar phenomena. Properly used, they may betray the presence of hip disease in a patient entirely free from pain and lameness at the time of the examination.

The other practical point which I would emphasise relates to the position of the limb. Adduction is most to be dreaded. It causes tilting of the pelvis and apparent shortening, which, although technically apparent, produces more disability and deformity than the shortening called real. It is due, as a general thing, to the fact that the patient uses the sound limb more than the affected one in walking, putting the former forward in less time than the latter, and unconsciously keeping the affected limb off the ground more than half of the time, and

[14] It is interesting at this point to recall the words of M. Hennequin: "Mais le corps humain, peut-il conserver pendant des mois entiers attitude verticale, touchant le sol par un pied seulement? Evidemment non, c'est au-dessus de ses forces. (Arch. Gén., Jan. 1860, p. 64.)

[15] Transactions of the Missouri State Medical Association, 1887.

drawing up and adducting it in order to make it less of an impediment. To prevent or remedy this, the patient, during and after treatment, should be drilled in rhythmical walking, which compels the affected limb (protected by the splint during treatment) to do its full share of the work of locomotion, and leads the patient unconsciously to thrust the affected limb down and to abduct it, so that it may be in the best position to receive the weight of the body and do its share in the work of progression. It is gratifying to witness a recovery in which real shortening is more than counterbalanced by apparent lengthening. Although this may be the condition when the patient is discharged, the abduction, which is so favourable a feature, may disappear and give place to adduction, with its disability and deformity, if the gait is allowed to become habitually irregular.

Figures 1,[16] 2,[16] and 3[17] will give an idea of the modifications which I have made in the splint.

In closing, I would deprecate a tendency to complicate the mechanics of the hip splint. If its true functions, which are few in number and simple, and the limitations of its usefulness are duly recognised, it will be found a most useful and convenient appliance.

New York.

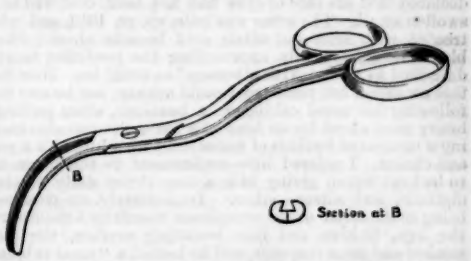
TRACHEOTOMY.

BY JOSEPH COLLIER, M.B., B.S. LOND., F.R.C.S.,
ASSISTANT SURGEON TO THE HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.

ALTHOUGH the operation of tracheotomy is generally looked upon as very simple, there are nevertheless few surgeons who have been called upon to perform it frequently without at times meeting with cases which presented great difficulty. Gross, who had an exceptionally large experience of the operation, says: "I know hardly an operation in all surgery that I would not rather undertake than this under such circumstances. The amputation of a limb, the extirpation of a glandular tumour, lithotomy, and even the perineal section, are trifling matters in comparison with tracheotomy in a short, thick-necked, and restive child." And even in the adult, in those cases in which the operation is called for urgently and requires rapid performance, it must always be a source of some anxiety to the surgeon. Where the operation can be performed at leisure and speed is no object, preference may rightly be given to the modification of Boze's bloodless method, described by Mr. Whitehead in THE LANCET. But, on the other hand, where it is required to open the air-passage with the greatest possible despatch, and where there is, therefore, no time to undertake the careful but somewhat tedious dissection with blunt instruments to expose fully and plainly the trachea, some more rapid method should be adopted. "Festina lente" is here a golden maxim, for too often has urgency induced the operator to make the incision into the trachea before that tube has been at all exposed. And then begins the difficulty; for though it is easy without properly clearing to open the trachea, it is not always easy to insert the tracheotomy tube. And the reason of the difficulty lies mainly in the anatomical arrangement of the layers of fascia in the region. For, besides the fascia stretching across between the sterno-mastoid muscles, and which is often divided into two layers for a considerable distance above the sternum, to the anterior and posterior lips of the upper border of whose manubrium it is attached, we have the layer extending between the sterno-hyoids and sterno-thyroids of opposite sides. Still deeper, a fascia runs upwards and downwards from the isthmus of the thyroid gland, the lower portion blending with the layer between the sterno-hyoids, and being prolonged downwards as far as the pericardium. Thus, if without clearing the trachea an incision is at once made through that tube and the layers of fascia over it, the least movement of the windpipe, as in attempted inspiration, will displace the parts so that the incisions through the trachea and its fascial coverings will no longer be exactly superimposed; hence the great difficulty of inserting either a dilator or a tube, and the frequency with which the tube is pushed down in front of the trachea.

To meet this difficulty, I have had made for me a dilator which robs the operation of its anxiety, and makes its performance certain and rapid. The instrument (shown in the annexed engraving) differs from the ordinary dilators in the following particulars. Firstly, it has a cross or scissor action, since that is the one to which most persons are accustomed, and which is therefore desirable in such an instrument; secondly, there is no outwardly projecting lip at the extremity, since the difficulty lies in inserting the dilator, and not in keeping it in place when once inserted; thirdly, and of most importance, there is a half groove on the inner face of each dilating limb, so that when the instrument is closed there is formed a full groove as on a director (seen at section at B in the figure).

It is advised that the operation be performed as follows. The patient's head, being thrown well back so as to expose clearly and put on stretch the parts in front of the neck, the usual incision is made and carried down between the sterno-hyoid muscles. If extreme rapidity is indicated, the knife, held perpendicularly, with its back towards the sternum and guarded from going too deeply by the index finger placed on the side of the blade, is pushed into the trachea, and an incision of the required length is made upwards through that tube and the fascial layers covering it. Then, before removing the scalpel, the groove on the



dilator is applied to the back of the blade, and, with this as a guide, the dilator is slipped down into the trachea and the scalpel withdrawn. The dilator can now be opened, when air freely enters the trachea, and a tube can be inserted with ease, as it is to some extent guided by the half-grooves.

I have lately used this instrument in some half-dozen cases, and have had no trouble in getting the tube safely into the trachea within a few seconds of making the first incision. It may be objected that the incision is made in the dark and that veins may be opened, but in only one case have I seen any bleeding, and this ceased as soon as the tube was inserted. Again, the operation is only recommended where speed is required and some slight hæmorrhage is of little importance as compared with the gain in time. The danger of wounding the posterior wall of the trachea by pushing the knife too deeply or by some sudden movement of the patient may be obviated by using a knife without curve but with a straight cutting edge, and, as soon as the trachea is opened, slanting the blade by moving the handle slightly towards the sternum. It may be urged that anyone accustomed to perform tracheotomy ought to be able to dispense with such aids, but unfortunately the operation is often suddenly and urgently required where there is no one so accustomed, and an additional aid is then of great use. Moreover, in those cases where after the tube has been left out for some days its re-insertion is indicated, there is often difficulty. Here a probe may be passed down the sinus into the trachea and the grooved dilator passed along the probe.

Manchester.

[16] New York Medical Journal, Jan. 24th, 1885, pp. 111, 112.
[17] Medical Record, June 25th, 1887, pp. 721, 722.

THE SANITARY INSTITUTE.—At a meeting of the Council, held on Wednesday, Dec. 12th, Sir Douglas Galton, K.C.B., F.R.S., in the chair, it was decided to hold three examinations next year—one for Surveyors in July, and two for Inspectors of Nuisances in May and November. Special courses of lectures and demonstrations for sanitary officers were decided upon, and a course of lectures on domestic hygiene for ladies to be given in Lent. Fifty-nine Members and Associates were added to the register, and forty-three applications were read for election at the next meeting.

THE VALUE OF JABORANDI AND ITS ALKALOIDS IN THE TREATMENT OF BRIGHT'S DISEASE.

BY J. G. MARSHALL, B.A., M.B. CANTAB.

THE value of jaborandi and its derivatives in the treatment of the dropsy of Bright's disease cannot be overestimated. By its use I have relieved in several cases some of the most distressing features of this complication, and prolonged or rendered less painful the termination of life in others; but in none has the drug been exhibited with such satisfactory results as in the following case.

S. D——, aged nineteen, fisherman, came under my care in September, 1887. A dropsical swelling of the loose tissue in front of the neck, giving him the appearance of having a "dew-lap," was the first symptom that excited the attention of his friends. This had existed for two or three months before the patient came to me. He had no other feeling of discomfort; gave no history of chill, lumbar pain, or noticeable disturbance of urination. He found his breath a little short when pulling his oar—that was all, so he said. On being stripped, there was no œdema of the legs or scrotum, and his mother, a very intelligent person, declared that his face or eyes had not been observed to be swollen at all. The urine was pale, sp. gr. 1012, and when treated with heat and nitric acid became almost like a blanc-mange, as nearly approaching the condition roughly described as "solid with albumen" as could be. How long this condition had persisted I could not say, but he was then following his usual calling as a boatman, often pulling a heavy punt about for an hour at a time; he was also carrying a number of buckets of water daily up a hill with a yoke and chains. I ordered him confinement to the house, and to be kept warm, giving him a dose thrice daily of steel, digitalis, and nitrous ether. Immediately on treatment being commenced other symptoms manifested themselves, the legs, ankles, and face becoming swollen, the pulse weaker and more frequent, and he looked a "renal subject," which he did not before.

After a short time of treatment at home, during which matters mended not a bit, he was, by his friends' desire, transferred to Dover Hospital, where he remained for more than three months. While in the hospital different methods of treatment were employed, and at one time the patient seemed decidedly better, but he contracted a cold, and then became worse, and it seemed doubtful if he could live to return home. In the second week of February I was sent for by the patient's father, and found him exceedingly ill. He was propped up in bed, and dropsical from head to foot; his eyelids, which were distended with effusion, completely closed the eyes. His face was livid, and the swollen condition of the cellular tissue of the neck made it almost as broad as his shoulders. He coughed incessantly, there was copious intra-thoracic effusion, and the subcutaneous tissue all over the chest was "doughy" to the touch. His abdomen was as big as a barrel, and there was extensive œdema of the genitals. His legs and thighs were enormously swollen, and water was exuding from them. He was passing a very small quantity of urine, which was of a dirty colour, and loaded with albumen. As a last resource, but without expecting much from it, I determined to try the subcutaneous injection of hydrochlorate of pilocarpin, and the next day I gave two injections of a quarter of a grain each, one in the morning and the other late in the afternoon. After each dose I covered the patient thickly with blankets. The first effect was a flushing of the face, the saliva was secreted copiously, and within five minutes he broke out into a profuse perspiration. After the first injection he expressed himself as relieved, and he certainly coughed less. On my visiting him the next day, the lad's appearance was improved; he could see out of his eyes, he had passed a fair night, and the dyspnœa was lessened. I continued two injections daily for three or four days, and after each administration he sweated most profusely. I found he became very faint soon after the injection, and to counteract this I gave him a good dose of gin-and-water before the next one, and repeated this each time afterwards, when he never complained of faintness. Vomiting also occurred, once or twice severely, which induced me to lower the dose to one-fifth of a grain, which I injected daily for nine or ten days. The improvement, which commenced early, was well maintained. At the end of a week he could sit up in bed, the cough was much less, the thoracic effusion had completely subsided, and his arms and neck were becoming less œdematous. The patient longed for my visits, and always expressed himself as feeling better after a "jolly good sweat." At the end of a fortnight his upper parts were free from effusion, but the abdomen was still much distended, and I hardly believed that we could get rid of an accumulation which at one time threatened to rupture the skin, and which it seemed that nothing but tapping could relieve. I then administered one-fifth of a grain on alternate days, and kept this up for another fortnight. He was then passing his usual quantity of urine, the albumen much diminished in quantity, he sat up daily by the fire, and there remained but a little swelling of the abdomen and legs. I continued the injections till the remaining dropsy had subsided. The improvement was maintained, and, under a diet of plenty of milk and the administration of steel and convallaria majalis, he was able to go out of doors and enjoy life with comfort.

I cannot say that the case is cured, as there is still about one-twelfth of albumen present in the urine, and the legs occasionally "pit" slightly on pressure. But the lad looks extremely well, his appetite is good, he can walk up a stiff hill without losing breath, and cannot believe that anything is wrong with him. I think that the almost miraculous improvement which followed the use of the pilocarpin is worth recording, and (when one considers the usual helplessness of a condition such as I have described, in a patient of this age and from such a cause) that jaborandi and its alkaloids must occupy the first place among known therapeutic agents in the treatment of cases of this kind. I have had good results from the use of an infusion made from the leaves of jaborandi, and drunk hot like ordinary tea; but the drawback appears to be the nausea so easily excited in these cases.

St. Margaret's, Dover.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE IN WHICH A CARTILAGINOUS TUMOUR WAS REMOVED FROM THE SUBCUTANEOUS TISSUE AT THE OUTER SIDE OF THE KNEE JOINT; REMARKS.

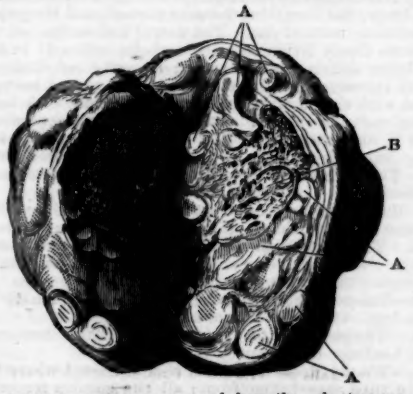
(Under the care of Mr. HOWARD MARSH.)

IT is very unusual to find cartilaginous tumours growing in connexion with the soft parts, if we exclude the parotid gland and the testis, their usual seat being on the bones; they may, however, be found growing in the subcutaneous tissue, or in the intermuscular planes, and of this Mr. Marsh's case is an example. There are, however, others than those which are mentioned in the remarks to this case, and we will briefly refer to them. One, presenting characters very similar to that described below as under the care of Mr. T. Smith, has been recorded by Mr. Athol Johnson.[1] A female, aged thirty, had an enchondromatous tumour, partly calcified and the size of a walnut, removed from the front of the right arm. It was in the subcutaneous tissue, and had been noticed for seven years. Placed in a loose cellular bed, it could almost be torn out with the fingers. The patient stated that her mother had had a similar tumour removed from her leg. Mr. Godlee describes small loose ossifying enchondromata removed from the neighbourhood of a pedunculated exostosis of the tibia from a boy aged eleven years. Mr. Heath[2] records a case of recurrent enchondroma of the upper jaw in a man, which commenced in the skin by the side of the nose. A tumour of the same character was removed from the front of the carotid

[1] Path. Soc. Trans., vol. vi., p. 336. [2] Ibid., vol. xix., p. 328.

sheath.[3] One, which had undergone osteoid change, was removed from amongst the muscles in the posterior femoral region; the patient, a female, had noticed it for two years and three months; a delicate envelope of fibrine tissue surrounded it.[4] A tumour of much larger size but similar in character to the last has been recorded by Mr. Croft.[5] The patient, a stableman aged twenty-five, had only noticed it for about three months, and ascribed it to the kick of a horse. It was growing in a cellular bed situated in front of the left thigh under the deep fascia between the sartorius and tensor vaginæ femoris muscles. After removal it required a saw to divide it. The varying consistency of growths of this kind is pointed out in the remarks, and Sir James Paget draws special attention to it in his lectures.

A. W——, aged fifty-seven, sent by Dr. Dixson, was admitted on May 23rd, 1888, with a swelling at the front and outer side of the left knee, which had been slowly increasing for two years. This was about the size of a small hen's egg, and, except that it was not in the middle line, had the appearance of being an enlarged bursa patellæ, whose walls had become thickened and condensed, and its cavity almost obliterated by the organisation of fibrous tissue. The skin over it was natural, and not adherent. It was irregularly prominent, and its surface showed three low-crowned lobes, which were to a certain extent movable on each other. When the tumour was closely examined, its exact nature seemed to become more and more doubtful.



Cartilaginous tumour removed from the subcutaneous tissue at the outer side of the knee joint. AAA, Nodules of hyaline cartilage. B, Calcified central portion.

In the first place, it was not situated over either the patella or its ligament. It was below the former, and external to and apparently slightly overlapped on the outer edge of the latter. Secondly, its centre felt as hard as bone, while in its more superficial portions it seemed here and there as firm and dense as cartilage. Thirdly, though not attached to the head of the tibia (this was clear, for it was freely movable), its outer portion was close down upon it, while its base was so deeply embedded that it lay fully an inch and a half below the surface, and so placed that it evidently encroached considerably on the cavity of the joint. The case was shown at the Thursday's consultation, and the majority of those who saw it, though recognising its unusual characters, regarded it as most probably a bursa. During the operation for its removal, Mr. Marsh found the outer edge of the ligamentum patellæ passing like a strap over its inner borders. When the surrounding structures had been detached from its anterior and lateral surfaces, he was fortunately able to shell it out from the deeper parts as a fatty tumour may often be shelled out from its bed. When this had been done, a deep cavity was exposed, which passed under the outer edge of the ligamentum patellæ, and which, over a considerable area, was separated from the cavity of the knee joint merely by very thin and translucent synovial membrane. It seemed evident, however, that the tumour had no structural connexion with the synovial membrane itself. It had, merely from its position, indented and displaced it. The limb was fixed on a back splint, and the wound healed by first intention.

[3] Ibid., vol. i., p. 153.
[4] Ibid., vol. ix., p. 398.
[5] Ibid., vol. for 1886, p. 474.

Mr. D'Arcy Power gives the following description of the tumour:—"The tumour is oval in shape, and has a rough irregular contour. In parts it is densely hard. It measures an inch and three-quarters in length by an inch in breadth at its widest part, and is covered by a layer of connective tissue. A pad of fat is situated at the back of the tumour, to which it is attached by the connective tissue covering. A section made through the mass shows it to consist of several nodules of hyaline cartilage (see A in figure), united together by connective tissue. The central nodule of cartilage is the largest, and it is calcified except at its most external portions." (See B in figure.)

Remarks by Mr. HOWARD MARSH.—This case seems worthy of notice from its rarity, and on account of the obscurity in which the exact nature of the tumour was involved before the operation. I cannot claim to have searched very widely, but as far as I have gone I have met with only two other instances of cartilaginous tumours in the subcutaneous tissue. One of these is recorded by Sir James Paget in his "Surgical Pathology."[6] A woman, aged forty-five (a patient of Mr. E. Bickersteth), had two tumours, one on the eminence of the right frontal bone, the other about half an inch below the right clavicle. The latter was about twice the size of a walnut, subcutaneous, and freely movable; it felt like a fatty tumour, except that it was not distinctly lobed, and was less firm and consistent than such tumours generally are. This tumour was removed, and was found to be "an oval mass, invested by a thin connective-tissue capsule, partitions from which intersected it and divided it into lobes of unequal size, distinct, yet closely packed. They all consisted of a soft flickering substance widely intersected by opaque-white lines. The substance was extremely viscid, and could be drawn out in strings, sticking to one's fingers like tenacious gum." The second case is one in which Mr. T. Smith removed a cartilaginous tumour from a healthy woman aged twenty-eight. The growth (which is described by Mr. Cripps in the Pathological Society's Transactions for 1880, p. 287) had been noticed for six years, during the last two of which it had not increased in size. It was situated in the upper third of the right arm immediately beneath the skin. Pyriform in shape, it was three and a half inches in length, and two in diameter at its widest part. In the axilla there were three or four nodules of the size of small nuts. The tumour was found, after removal, to consist of a nodular mass of cartilage, enclosed in a capsule. Besides the main tumour, there were a dozen or more completely detached lobulated bits of cartilage from a quarter to half an inch in diameter. These portions were enclosed in the capsule, but fell out when the capsule was opened. The detached nodules in the axilla were also cartilaginous. In the centre of some of the nodules was some hard calcareous matter.[7] When first seen, the tumour which I have described above appeared—whatever its exact nature might prove to be—to belong to the knee joint. If not a bursa, it was thought to be probably a mass of partially calcified cartilage, developed in connexion with the fringes of the synovial membrane, and now by its bulk protruded outwards; or possibly it was an exostosis detached from the head of the tibia. In removing it, however, I found that it clearly had no connexion with the joint. It was near the joint only because it had been developed in the subcutaneous tissue in that situation. Yet the position which it occupied added considerably to the difficulty of forming anything like an accurate diagnosis. The tumour much resembled the specimen removed by Mr. Smith in being lobulated and partially calcified and extremely hard. The tumour described by Sir James Paget, on the other hand, was like a fatty tumour, except that it was not distinctly lobed, and was less firm than such tumours usually are. In all the cases the tumours were movable on the subjacent structures, and the skin covering them was healthy. They were of slow growth. One had existed for two years, one for six, and one for eight; all were painless. Mr. Smith's case and the case I have related combine to show that when a tumour is met with in the subcutaneous tissue, freely movable, covered by healthy skin, of slow and painless growth, lobulated and very firm, dense and hard, the suspicion may be entertained that it is formed of cartilage partially calcified. The nature of the case described by Sir James Paget was probably entirely masked by the soft and diffluent condition of the tumours.

[6] Third edition, p. 511.
[7] St. Bartholomew's Hospital Museum, specimen 3261.

ST. GEORGE-IN-THE-EAST INFIRMARY.

CASE OF CHARBON; EXCISION; RECOVERY.

(Under the care of Mr. J. W. SANDERS.)

THIS is a typical example of charbon or malignant pustule, and is a short, complete account of a case of the disease and its treatment. It is interesting to look at the earlier history of the disease as known in this country. In 1862 Dr. Budd of Bristol read a paper on this subject, and gave a summary of nine cases which he had seen, and of seventeen which he had collected; he referred to the treatment by excision as practised abroad, and added that the disease was only mentioned in two of the medical works of the day. This statement, which was denied by some who quoted cases which had appeared in the medical papers of the time (some of them from St. Bartholomew's Hospital), is confirmed on examination, for they were probably malignant carbuncle with pyæmia; and by Mr. Morrant Baker, who, in 1884, published what he called the first case seen at that hospital. Much confusion has, however, arisen in the past from the use of the word "pustule." Bourgeois's work in 1863 on Malignant Pustule and Malignant Œdema did much to advance a knowledge of the disease, and the investigations into the life history of the bacillus discovered by Pollender in 1852 carried us much further. Many things have been tried as local applications to the part, from walnut leaves to pure carbolic acid, applied after incision, and the actual cautery; but the method adopted in Mr. Sanders' case is the one generally acknowledged as the best—that is, free excision and the application of a powerful caustic; some using a strong solution of iodine, chloride of zinc paste, or pure carbolic acid, as an application to the raw surface.

A. M——, aged fifty, was admitted into the infirmary on Oct. 22nd, 1888, with the following history. He had been a free liver, and had worked on and off at the docks for years. Three weeks previously he was engaged in moving bales of wool, since which he had been engaged in ordinary labouring work. On the 19th (three days before admission) he noticed a pimple on his face; he scratched it and made it bleed. On the next day he noticed that it was black in the centre, and that it was swollen and surrounded by a red ring. Being much worse the next day, he applied for admission.

When seen the man presented the following symptoms. He appeared to be very ill; was trembling and could scarcely stand. Temperature 101·6°; pulse 110. On the left cheek was a black patch about three-quarters of an inch in diameter, dry and anæsthetic; surrounding this was a zone of imperfectly formed vesicles, which was again surrounded by a ring of red brawny œdema (three and a half by two inches); no sign of pus. He complained of no pain whatever; there was œdema of the eyelid and also of the submaxillary region, and the glands in this region could be felt to be enlarged.

The A.C.E. mixture having been administered by Mr. Pollard, the whole patch on the face was excised, the incisions being made through healthy skin. One small vessel was twisted, and the surface of the wound mopped with nitric acid. Dry dressing was applied. Bacteria were distinctly seen in the blood which was scraped from the surface of the excised mass.

On Oct. 24th the wound was dressed for the first time, the œdema of the eyelid had disappeared, that of the neck was much less, but the glands still felt enlarged; the wound looked healthy; iodoform and dry dressing were applied. Temperature 99°; pulse 80. From this point the patient never had a bad symptom; the wound continued to be dressed with iodoform and wood-wool; it granulated up and healed till very little scar remained. He was discharged on Nov. 17th, twenty-six days after admission, quite well.

BURTON-ON-TRENT INFIRMARY.

COMPOUND COMMINUTED FRACTURE OF THE SKULL, WITH EXTENSIVE INJURY TO THE BRAIN; OPERATION; RECOVERY.

(Under the care of Mr. MASON.)

WE have seldom recorded instances of fracture of the skull in which more extensive injury than was present in this case terminated in recovery. The success attained must be largely attributed to careful antiseptic treatment. For the following notes we are indebted to Mr. M. W. Oldham, house surgeon.

J. C——, aged forty-three, signalman, was admitted on Oct. 18th, 1888, at 8.45 A.M., suffering from compound comminuted fracture of the skull. The man gave the following history. He left the signal-box at 7.10 A.M., and remembered two trains passing him. The atmosphere was very foggy, and he was walking in the six-foot way. He was picked up unconscious by some workmen, having been knocked down by another train, and they brought him to the infirmary. On the way he regained consciousness, and vomited once.

When admitted, the man was rather dazed, but not suffering much from shock. Pulse 72, full and compressible; pupils slightly dilated and reacting to light. There was a V-shaped lacerated wound of the scalp, commencing half an inch behind and an inch and a half above the right external auditory meatus, extending for about two inches and a half upwards and forwards. The skull was comminuted and driven into the brain. The brain was much lacerated, and portions of two convolutions were detached, lying at the edge of the wound. There was no paralysis or loss of sensation. Chloroform was administered, and after a few inspirations the breathing became stertorous, the pupils widely dilated, and he vomited. Eight pieces of bone were removed with the elevator and forceps, varying in size from a pea to a shilling. After removing the largest piece, which was embedded in the brain, the breathing became normal, and the pupils regained their natural size. The wound and surface of the brain were freely irrigated with carbolic lotion (1 in 40), much brain débris coming away; a good-sized drainage tube was introduced, and the edges of the wound brought together with eleven wire sutures, and dressed with iodoform and carbolised gauze. At 11.30 P.M. the temperature was 98·4° and the pulse 70. The patient had taken nothing but a few lumps of ice, and had vomited three times. Two minims of liquor morphiæ were given subcutaneously.

Oct. 19th.—Temperature 98·4°; pulse 72. Slept two hours last night. Vomited again this morning. Head dressed. There had been a good deal of serous and bloody discharge. Ice was ordered, and half a pint of milk to be taken during the twenty-four hours.

20th.—Temperature 99°; pulse 70. Temperature 99° in the evening. Ordered a pint of milk.

22nd.—Temperature 98·4°; pulse 64. Tube removed. Wound healing; dressed with wet boric lint.

25th.—Wound dressed; it has healed except where the drainage tube was taken from; all the sutures removed. To have three pints of milk.

27th.—Wound completely healed. Half a pint of beef-tea ordered.

After this the diet was gradually increased, he was not allowed to get out of bed for three weeks, and he left the infirmary a fortnight later, not having had a symptom beyond the slight attack of vomiting, and the temperature never rose above 99°.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Skeleton of a Dwarf; Adjourned Debate on Chronic Alcoholism.

AN ordinary meeting of the above Society was held on Dec. 18th, Mr. Morrant Baker, Vice-President, in the chair.

Mr. JONATHAN HUTCHINSON exhibited the Skeleton of a Short-limbed Dwarf, aged thirty-five, from the Norfolk and Norwich Museum, which he believed was unique so far as England was concerned. All the limbs were affected, but the cranium and trunk had developed normally. The clavicles, instead of articulating in the usual way, had a sliding joint on the upper aspect of the manubrium sterni. He showed photographs of the limbs and of the individual bones, and also copies of two skeletons in the Musée Dupuytren at Paris; one being a fœtus which had died at birth, the other a short-limbed dwarf, a woman, who died, aged twenty-two, after Cæsarean section. All these specimens were labelled "rickets," but Mr. Hutchinson objected to this, as the usual signs of that condition were not present. In Mr. Cadge's

specimen from Norwich the clavicle was short and thick, and the bones resembled those of a brute, the humeri being like those of a bear, the femora like those of a horse. The pelvis was small, but the diminution was not due to rickety distortion. The three cases he had referred to were similar, and were the only specimens he knew of. He did not think they were cases of simple arrest of development; the largeness of the bones and the prominences of the muscular markings were against this. He thought them instances of a retrogression in type involving only the limbs. The Norwich man had peculiarities also in his moral history; he was hanged for the murder of his wife and child, and expressed no contrition after the commission of the crime.—Mr. SHATTOCK said that whilst Mr. Hutchinson was President of the Society a discussion took place on this subject in connexion with rickets. He referred to four specimens illustrating this lesion, one being at King's College, two in the College of Surgeons, one at St. Bartholomew's, and one at Middlesex Hospital. He thought the condition present was that described by Parrot as "achondroplasia." Horsley had shown that excision of the thyroid gland in animals produced dwarfing of the bones of the limbs.—Mr. PARKER said the condition exhibited differed from the cases Mr. Shattock had spoken of, the latter occurring in infants prematurely born, and who were usually incapable of independent life. He thought the case from Norwich was a case of ordinary rickets; it was not uncommon, and occurred in both upper and lower extremities, and pointed to changes at the epiphysial junction. Rickets was not only characterised by curvature, but by arrest of development of the tissues generally.—Mr. HUTCHINSON, in reply, thought the skeleton presented peculiarities which separated it entirely from the majority of cases of rickets, for the bones were straight and strong, and not curved.—A committee was nominated to examine and report upon the specimen, consisting of Messrs. Hutchinson, R. W. Parker, Shattock, and Bland Sutton.

The debate on Chronic Alcoholism was then resumed.

Dr. DICKINSON insisted on the overgrowth of fibrous tissues as the essential part of cirrhosis of the liver and of granular degeneration of the kidney. He had often seen what appeared to him to be irresistible evidence of the new growths in the cirrhotic liver and granular kidney of childhood, where it was very prolific and highly nucleated; he had satisfied himself that new vessels were developed in this new tissue. Whatever might be the minute anatomy of cirrhosis of the liver, there could be no doubt as to the effect of alcohol in causing it. In the course of the circulation alcohol reached the liver first and the kidneys only after distance and dilution. In a comparison between 149 persons whose occupation made them conversant with drink—potmen, brewers, &c.—and the same number of persons not so conversant, cirrhosis of the liver presented itself in twenty-two of the traders in drink and in eight only of the others. Thus the evidence as regarded the liver was clear enough, and might be taken to imply also that the class regarded as the more intemperate were not suspected without reason. With regard to the kidney there was no such evidence. The total of renal diseases was not greater in the drink class than in the others, while granular degeneration in particular was only slightly increased—thirty-one against twenty-seven. A similar conclusion was reached by examining persons dead of delirium tremens, with whom renal disease was not more frequent than in persons taken by chance who had died from accident. The effect of alcohol on the kidney was not to be entirely ignored, but had been overrated. The fact appeared to be that the liver was acted on chiefly by alcohol, the kidney by a variety of causes, of which alcohol might be one, the others being heredity, climate, gout, lead, &c., upon which it would be foreign to the present purpose to dwell. A point of interest as between the liver and kidney was the fact that the two seldom became fibrotic together. Only one-seventh of persons with granular kidneys had cirrhosed livers, showing that the two diseases were probably due to different causes. Next, as to tubercle as a result of alcoholism, the observation already referred to showed a greater frequency of tubercle in every organ liable to it in persons trading in drink as compared with others. In this way they amounted to a proportion of three to two. In other organs the preponderance of tubercle with drink was still greater, so that no doubt could be entertained that drink promoted tubercle, instead of, as had been thought by some, preventing it. In conclusion, another point of view was proposed to the Society: alcohol undoubtedly caused many diseases—were there none or no morbid conditions which it tended to prevent? Good health was a medium state, neither too little nor too much of anything: the brain not active to mania or sluggish to melancholy, the heart not over-stimulated or over-inhibited, the bowels moving, but not excessively, the urine sufficient, but not profuse, and so on. Thus, if alcohol caused a departure from health in one direction, might it not prevent departure in an opposite direction? If alcohol prevented oxidation, it should be good where oxidation was in relative excess. In short, as alcohol produced some disorders, might it not prevent their contraries if such there were? In the cases spoken of, if drink appeared to retard adhesive and plastic processes and replace them by suppurative, it was conceivable that this, though generally injurious, might in certain circumstances be beneficial. The facts indicated that endocarditis was less frequent in the drink-traders than in others. Without pretending to speak otherwise than doubtfully on these points, they were suggested for the consideration of the Society.

Dr. BUZZARD would not discuss the clinical aspects of alcoholic neuritis, which were now very generally recognised, except to draw attention to the fact that alongside of the complete immunity of the functions of the bladder and rectum usually observed in these cases, there was in females an almost constant suppression of the catamenia during the many months of illness usually involved. He had not seen any reference to the circumstance, which had forced itself upon his attention in numerous instances. Agreeing with Dr. Payne that the acceleration of the heart's action was probably due to lesion of the vagus, he suggested thatt he pneumonia which occasionally terminated cases of this kind might probably be due to a similar cause. Dr. Payne had referred to the two kinds of microscopical changes in the peripheral nerves, and had remarked that, although very generally the changes were found together, sometimes the signs of parenchymatous degeneration, at others those of interstitial, predominated. Both, however, he had gone on to say he believed to be produced by the direct action of alcohol, but Dr. Buzzard could not acquiesce in this view. He pointed out that we had not to do with universal or even very widely spread changes in the nerve fibres; as a rule, where death had given the opportunity of observation, it was found that the spinal cord, the roots of nerves, the plexuses, and the proximal portions of the nerve trunks to the extremities were perfectly free from pathological changes, which were confined to a greater or less extent of the periphery of the nerves. This, surely, was not what might be expected as a result of alcohol in the current of the blood, permeating equally all tissues of the body. Moreover, although, as Dr. Payne had justly remarked, the parenchymatous or interstitial changes usually went together, they did not always do so. The exceptions, indeed, pointed out by Dr. Strümpell and others were so striking that it had been seriously suggested by Erb that we had to do with two distinct diseases—a degenerative atrophy of peripheral nerve fibres, and an interstitial neuritis having no connexion with the former. Were the action of alcohol direct, the exclusive affection of one structure was hardly conceivable, especially as the fatal issue showed that the cases in which this occurred were of severe, not slight, character. Dr. Buzzard had long felt that, notwithstanding the absence of observable lesion, there was probably some change in the cord which brought about the coincident and limited affection of the periphery of so many nerves, and some years ago (Harveian Lectures, 1885) he had suggested that it was upon the vaso-motor centres in the bulb and cord that the toxic action of the alcohol was primarily exerted. It was of common observation that the commencement of alcoholic inebriation was flushing of the face, indicating that the cervical sympathetic was becoming paralysed. This was a temporary and passing influence, yet one would conceive that the effect of repeated and, so to speak, permanent toxic action of the same kind would be to cause more or less enduring alteration in the calibre of minute arteries—those in which the muscular element was relatively most developed. These belonged to the periphery of the arterial system, and corresponded generally with the periphery of nerve fibres. It was conceivable that the supply of blood to the periphery of nerves might in this way be modified by an irritative influence excited by alcohol on the vaso-motor centres in the bulb and cord, and according as certain sets of vaso-motor or vaso-dilator fibres were affected,

the tone of a vascular area would be changed in the direction of constriction or dilation. Notable diminution of blood supply long continued would occasion starvation and degeneration of the elements of nerve fibre, whilst arterial dilation would cause blood stasis and inflammation. The limited œdema so often observed in cases of alcoholic neuritis bore concurrent testimony in favour of this view. He then criticised the etymology of the termination "itis" as signifying inflammation, its true signification being adjectival—as nephritis, concerning the kidney &c.

Dr. SAVAGE approached the subject with some diffidence when addressing the Pathological Society, as his experience was chiefly clinical. Yet he presumed that there was a pathology beyond mere rags and tatters of humanity, and he addressed himself to the more general side of the pathological effects of alcohol on the nervous system, more especially on the higher or mental centres. During the past seventeen years, out of 4000 patients admitted into Bethlem, of whom he had records, only 133 had drink given as the cause of their insanity; this was a very small proportion, and was not to be considered as at all representing the proportion of insanity produced by excess of stimulants; for in Bethlem, the patients being specially selected from the more deserving classes, many drunkards were thus excluded. The cases admitted provided good examples of the various nervous disorders produced by alcoholic poisoning, both acute and chronic. He was surprised to find that of these 133, less than one-fifth had any insane relations, so that the persons so affected did not come from the nervously unstable; thus drink produced insanity in many who were otherwise fairly stable. Drink, on the other hand, could be shown to be the starting point of neuroses in the individual and also in the family. Again, of those becoming insane as the result of alcohol, only a very small proportion were suffering from general paralysis. To return more in detail to the subject of Dr. Payne's paper, he agreed with his divisions, and had for years been in the habit of teaching that there might, first of all, be simple disorder of function; next, malnutrition; and, lastly, there might be disease or degeneration of the tissues, and with each of these stages special symptoms were to be met with. First, then, alcohol might produce confusion of ideas, gradually becoming delirium; these states of confusion or delirium might be repetition, become more or less habitual, or might lead to still greater nervous instability, which was recognised as mania or partial weakness of mind. In these cases, the delirious aspect might be retained from the first and remain for weeks or months. If such cases died, little or nothing was found to account for the mental state beyond changes in the brain cells, which were similar to those met with in old age, or in states of exhaustion such as seen after typhoid fever. In the next group of cases, we had to recognise alteration in the general nutrition, which was more lasting in its effects, and also more widespread in its evidences. In some, the milder cases, the alcohol seemed to loosen the nervous fibre, so that the more human moral and social relationships were disregarded, and there was emotional instability, loss of memory, want of energy, will-power, and lack of judgment, so that domestic troubles frequently resulted, leading to further distress of mind and body; and sleep, the brain food, was wanting or unrefreshing. In another group of cases, falling, he believed, under this heading of malnutrition (with, or frequently without, any of the social disorders), were the patients who were annoyed by sensory troubles of one kind or another. Thus there might be uneasy skin sensations, giving rise to ideas that electricity was being used to injure or annoy the patient, or that some unknown "influence" was exerted from without by some evil-minded persons for their own objects; hallucinations of smell might lead to ideas of poisoning, and visions of insects or of devils might give rise to other fancies of persecution; whilst hallucinations of hearing might start the thought that there were watchers about, anxious to injure or annoy; from one or more of these being present a whole fabric of delusion might arise, generally anti-social and dangerous. It might happen that these or similar symptoms might be quite acute in their onset, and might pass off rapidly, pointing to their production by an ephemeral cause. In these cases, he fancied, the changes in the tissues were more marked than in the first group, though he never had the opportunity of examining any such case in its earlier stages. There might be other evidences of malnutrition depending on disease of some of the nerves; he was inclined to think that a fairly large group of persons suffering from hallucinational and delusional insanity owed this in great part to peripheral neuritis of alcoholic origin, and he could, if time permitted, have given very good clinical examples. Such changes in nutrition led very gradually into those in which there was distinct tissue waste and disease, and he would first state that wasting seemed to him to be the chief characteristic of these cases. He did not know of any stage of hypertrophy preceding the wasting, but it might occur in cases in their earlier stages. In these cases there was progressive loss of power of one or all the faculties, and with it general wasting of the brain, so that the convolutions appeared to be numerous and separate, and distinctly narrow at their edges, the calvaria often marked by Pacchionian bodies, the dura mater often rather thick and adherent, the arachnoid thickened with milky spots, excess of fluid, at times hæmatomata, and he had several times met with a clear filmy membrane lining the middle fossa at the base of the brain, evidently allied to the above membrane. It was interesting to note that pachymeningitic membranes were proved now to depend on wasting, and not on inflammation, and they occurred under these conditions in general paralysis and in alcoholic dementia. It was well to remember that towards the end of life an acute inflammatory process, associated with maniacal excitement, might come on and rapidly kill the patient. Having briefly considered, in no novel way he feared, the pathology of general insanity and alcoholic excess, he passed to the most important and most debated question as to the relationship between alcoholic excess and the production of general paralysis. Many authors considered that it was the chief cause, and Dr. Mickle, from his experience, which was chiefly drawn from old soldiers, took it to be the great exciting cause; while Dr. Maudsley did not speak so definitely, but believed it to be associated with the disease; and most writers, English and foreign, traced a connexion between intemperance and the increase in this disease which had been so marked of late. He rather agreed with Dr. Payne that strain—that was, wear and tear under conditions in which repair could not be effected—was the real cause of general paralysis, and that drink might in some cases directly, and in more indirectly, have a causative effect. General paralysis was a disease of those who led active lives; it was more common in those who ate meat and took stimulants, such as alcohol; it occurred in city dwellers, whether working with the highest or only the ordinary mental faculties. He found that of the last 103 general paralytics admitted under him at Bethlem only seven had distinct histories of alcoholic excesses before the onset of the disease. These numbers were smaller than he expected, and at first sight were puzzling. The symptoms of drunkenness had been compared to those of an attack of insanity, but he would rather, with Wilks, say that in early alcoholism you saw all the possible symptoms met with in early general paralysis; the same functions were disordered in the same way, and yet the functional disorder did not so frequently lead to organic change along the same lines as one would have expected. The reason seemed to be that alcohol was very unstable and easily got rid of, so that the highly vascular organ, the brain, had a power of self-repair which was astonishing. It was seen that with more stable causes of disorder similarly happy results did not follow; thus lead-poisoning was not uncommon as a cause of general paralysis, and local syphilitic lesions were still more potent in leading to permanent degeneration. It was interesting to him that not only were the mental symptoms met with in alcoholism and general paralysis parallel, but there were, further, bodily likenesses. Thus there was a group of general paralytics who had a very beery aspect, while another group had all the looks of the spirit-drinker even to the capillary stasis about the face. To sum up this part, he would say that though alcoholic excess was common in general paralysis, and might be in some cases the predisposing, and in others and a larger number the exciting, cause of the mental symptoms first noticed in general paralysis, yet he did not find that more than 7 per cent. depended on alcohol alone as a cause. Neuroses in parents might appear as intemperance in the children, but drink in the parent very often appeared as one of the forms of mental weakness or instability in the offspring; thus idiocy and moral defect and tendency to break down at critical periods of life were noticeable in the children of parents who had been given to alcoholic excess. He had not time to discuss the relative

frequency with which the various signs of mental disorder occurred in alcoholic insanity, but he was bound to say that poisonings, persecutions, tabetic weakness, and local or general nerve-pains, and false interpretation of these, were specially common, and that the changes varied from slight malnutrition to wasting allied to senile decay.

Dr. G. N. PITT had searched the records of Guy's Hospital for facts bearing on the subject of debate. Dr. Hilton Fagge had published statistics of cases of hepatic cirrhosis down to 1875, and more recently Dr. Price had brought the record to 1884. He himself had analysed the cases dying during 1885 and 1886, and had found certain interesting facts. Cirrhotic livers were essentially large, the increase in size being due to the concomitant fatty change. Only one-third were below the average weight. Granular kidneys were generally associated with the small liver. In twelve cases of hard drinkers large kidneys had been found weighing together from twelve to fifteen ounces, cases of lardaceous and cardiac disease had been excluded. Most of them were normal microscopically. It was worthy of note that in diabetes the usual weight of these organs was fifteen ounces, and the cause of the hypertrophy was probably similar in both. Discussing the relation of tubercle to alcoholism, of eight consecutive cases he had found acute tubercle in six and fibroid in two; but this was not the average, for, taking the cases for eleven years only, 22½ per cent. had tubercle. Frequently phthisical symptoms were not marked, and this probably explained the non-agreement of his results with the conclusions arrived at by a study of the Registrar-General's returns. Thirty-three cases under forty years of age were examined, and two-thirds of them had tubercular disease. At Guy's, in twenty years three cases of acute yellow atrophy had occurred in drunkards, one of these being classed as "acute red atrophy" by the Morbid Growths Committee. Seven cases of cirrhotic liver which had become cancerous were met with, and among rarer lesions three cases of acute cerebral meningitis and three of pachymeningitis were observed in fifteen years.

Dr. FINLAY said the appearances presented by the microscopical sections he had shown bore out in detail much that had been said by Dr. Payne as to the pathological changes found in certain parts of the nervous system in alcoholic paralysis. The specimens were furnished by patients who died in the Middlesex Hospital, one being a female aged twenty-eight, the other a male aged fifty-one. They were typical cases of the disease, both as regarded history and symptoms. Dr. Finlay then described in detail the character of the changes seen—thickening of the perineurium, infiltration with leucocytes, and breaking up of myelin in the nerves; wasting of the muscle fibres, and crowding of the interstitial spaces with nuclei. Sections of the cord from one of these cases were quite normal, though he had observed changes similar to those described by Sharkey in one case. He referred to the interesting fact of changes being found in the vagus; the great acceleration of pulse from 72 to 160 in a few days in one case bring the pathological changes into line with the symptoms in an instructive way. The same remark applied to the phrenic nerve. With regard to the order of the changes in different parts of a nerve, he submitted that on the whole he was in favour of the parenchymatous change being the first and the inflammation of the perineurium secondary. This was suggested to him by the fact that of the cases he had observed the one of longest standing was the only one which showed marked inflammatory appearances in the surroundings of the nerve and in the muscle. The parenchymatous changes were equally well marked in all. He thought that the connexion between alcoholic paralysis and tubercular disease was a causal one, for the excess in alcoholic indulgence led to both. It was quite true that persons suffering from phthisis might be benefited by a certain amount of alcohol, but this was regulated use of alcohol, and was a very different thing from the Bacchanalian bouts of drinking indulged in by the patients whose organs were being discussed. The latter kind of drinking might be the cause of other lapses from morality and hygienic conditions of life which might reduce vital power and determine the access of phthisis, especially in persons predisposed to the disease. He had been brought into contact with five severe cases of alcoholic paralysis, four of which had died and one recovered. Of the fatal cases two had phthisis and two had not; the liver was fatty and cirrhotic in all; the nerve roots were unaffected. It was impossible to generalise upon small groups of cases, but the aggregate of experience brought forward on this occasion would help towards some valuable practical conclusions.

Dr. SHARKEY said that Dr. Payne, in his introduction to this debate, raised the difficult question—Was the poisonous action of alcohol first exerted upon the specialised parenchymatous tissues of the organs or upon the connective tissue which formed their framework, or upon both concurrently? If this question were taken as referring only to such anatomical alterations as we could appreciate by means of the microscope, he thought it could be shown that in the case of the liver, at any rate, the poison acted upon the portal vein and upon the connective tissue which surrounded it in the first instance, and that the liver cells in its immediate neighbourhood might for a long time remain healthy. He had tried to demonstrate this by means of two sections, the first showing the dilatation of the portal vessels and development of young connective tissue in the early stage of cirrhosis, and the second showing healthy liver cells lying alongside enormous strands of firm connective tissue in the advanced stage of the disease. In other organs—the spinal cord, for instance—he had seen the vascular and parenchymatous changes side by side. But it was probable that owing to inheritance and acquired peculiarities individuals might differ in this respect, and that one person's connective tissue and vessels might fall a more easy prey to the destructive action of alcohol than those of another; while in others the parenchymatous elements might be more vulnerable. But it was an undoubted fact that death of the liver cells might occur even over very wide areas in cirrhosis. It seemed to him, however, to be very uncertain what the deadly agent was in such cases, for this necrosis might certainly take place after patients had remained for long periods in hospital without drinking any alcohol. Might not some other poison, either organic or inorganic, have gained access to and killed the cells? He showed a specimen where many colonies of micrococci were to be seen amongst the necrotic cells, and in the connective tissue strands, in order to draw attention to this point and to suggest further investigation of such cases. Observers still differed as to the effects of alcohol on the kidney, some holding that it was not a frequent cause of their disease. His experience in the post-mortem room for the last ten or twelve years had left him strongly imbued with the opinion that it was a potent factor in the production of chronic renal disease, though its injurious effects were far more frequently exemplied in cirrhosis of the liver. With regard to the action of alcohol on the nervous system, it seemed probable from the observations hitherto published that it fell most intensely upon peripheral nerves and muscles, and much less, though to a certain extent, upon the central nervous system. Of course he was speaking of the palpable anatomical alterations, for the functional disturbances of centres, which left no trace behind, were often very severe. So widespread might be the effects of alcohol on nerves, that it was a question whether any nerve was beyond its reach. In the last volume of the Transactions, he reported a case in which, in addition to the nerves and muscles of the limbs, the phrenic and pneumogastric nerves, together with the muscles they supplied, were affected. But it was probable that even nerves of special sense might not escape. Some authorities supposed that certain cases of tobacco ambylopia were of alcoholic origin, though he was not aware that any cases of this axial change of the optic nerve in alcoholism had been published. He then mentioned a case which came under his care of what he believed to be alcoholic retinitis; Dr. Ord had published it in THE LANCET for Feb. 11th, 1888. It was the most severe case of alcoholic paralysis which he had seen recover. Though at one period of her illness she had a trace of albumen, it became quite clear before she left St. Thomas's Hospital, where she remained for sixteen months, that she had no chronic renal disease. Dr. Ord remarked in his account of the case (she was under his care during the greater part of her illness): "The question arises whether the retinal changes are due to renal mischief, or possibly to a peripheral neuritis of alcoholic origin." Dr. Ord had not then seen the note which Mr. Nettleship was good enough to make just before the patient left the hospital. It was as follows: "Much better in health. Says vision is quite good. Opthalmoscopic examination of right eye (atropised) showed two kinds of changes: (*a*) Scat-

tered, usually oval, dirty white spots in neighbourhood of optic disc, more above than below; all were beneath vessels; pigment around them was rather intensified, but there was no definite collection; surface of some of them was a little granular or glistening. Their exact nature could not be decided by the ophthalmoscope, but they might be deposits between retina and choroid. (*b*) Ordinary bright white (frosted silver) confluent dots, grouped chiefly along large vessels above and below yellow spots, but scattered in other parts. Optic disc of healthy colour and transparency; vessels normal; retina round disc slightly thickened and filmy (parallactic movements). None of the pigment spots so commonly seen after renal retinitis, except one at the periphery. Though the silver white spots (*c*) were near to large vessels, they were never in front of them, nor were they arranged about the yellow spot at all, as was usual in renal cases. Left eye similar changes, but less abundant. If seen now for the first time, the changes would hardly suggest albuminuric retinitis, nor did they agree with any common type." Dr. Mott reported at the last meeting of the Society a case of fatty degeneration of the heart and sudden death in a drunkard. As he had demonstrated that inflammation of the pneumogastric and of the heart's muscle occurred in alcoholism, he would suggest that the cardiac degeneration might be the result of alcoholic neuritis, just as the muscle of the limbs degenerated as a consequence of disease of their nerves. Phthisis was frequent in cases of alcoholic poisoning, and, as Dr. Payne said, it was almost the rule in alcoholic paralysis. Two factors were required to produce phthisis: firstly, the bacillus tuberculosis; and, secondly, a soil rendered suitable by lessened vitality and nutrition. Might the second factor be supplied in alcoholic paralysis cases by the inflammation of branches of the vagus or other nerves going to the lung? This would only be another instance of the effect of nerves on nutrition.

The debate was then adjourned till Jan. 15th.

The following microscopical specimens were shown:—

Dr. FINLAY: (1) Transverse Section of Plantar Nerve, showing degenerative and inflammatory changes; (2) Longitudinal Section of Plantar Nerve, showing increase of nuclei and infiltration with leucocytes; (3) Longitudinal Section of Phrenic Nerve where it passed into the substance of the diaphragm, showing exactly similar changes to those seen in the nerves of the extremities; (4) Longitudinal Section of Phrenic Nerve higher up, showing degeneration of nerve fibres with segmentation of the myelin; (5) Transverse Section of Extensor Carpi Radialis Longior Muscle, showing increase of nuclei of sarcolemma and infiltration with leucocytes; (6) Section of Spinal Cord in Lumbar Region from a case of Alcoholic Neuritis, showing no abnormal changes; (7) Longitudinal Section of Musculo-spiral Nerve, with well-marked segmentation of myelin; (8) Longitudinal Section of Phrenic Nerve, with slighter similar changes.

Dr. HADDEN: (1) Section of Muscle, showing round-celled interstitial growth; (2) Teased Preparation of Anterior Tibial Nerve, showing the nerve fibres in various stages of degeneration.

Dr. OMEROD: (1) Longitudinal Sections of Nerve stained with Osmic Acid, showing breaking up of the myelin; (2) A series of Sections of Spinal Cord, showing no changes; (3) Section of Muscle, showing increase of nuclei; (4) Transverse Section of Nerve, showing interstitial thickening of endo-neurium.

Dr. PITT: (1) Hypertrophic Cirrhosis of Liver, showing changes similar to acute yellow atrophy; (2) Section of Peripheral Nerve, showing interstitial inflammatory changes.

Dr. SHARKEY: (1) Early Dilatation of Portal Vein; (2) Advanced Cirrhosis, showing healthy liver cells alongside thick strands of connective tissue; (3) Puckered Capsule in Advanced Cirrhosis; (4) Kidney from a case of Severe Alcoholism, showing extreme congestion; (5) Popliteal Nerve, with marked Inflammatory Changes; (6) Phrenic Nerve as it enters the Diaphragm, showing similar changes.

Mr. D'ARCY POWER: Cast of Right Leg from a case of Alcoholic Neuritis.

Drawings of Microscopical Sections by Dr. FINLAY and Dr. SHARKEY.

Drawing of Cirrhosis of Liver by Dr. DICKINSON.

Mr. JONATHAN HUTCHINSON: Skeleton of Short-limbed Dwarf from the Norwich Museum, and several drawings of other similar cases.

CLINICAL SOCIETY OF LONDON.

Aneurysm opening into Descending Vena Cava.—Cause of Speedy Death in Heart Disease.—"Summer Eruption."—Scleroderma and Rheumatism.

AN ordinary meeting of this Society was held on the 14th inst., Dr. W. H. Broadbent, F.R.C.P., President, in the chair. The prevalence of fog accounted for the absence of the living specimens.

Dr. C. ARKLE and Dr. ROSE BRADFORD communicated a case of Aortic Aneurysm rupturing into the Descending Vena Cava. J. W——, aged sixty-one, shoemaker, was admitted into University College Hospital, under Dr. Ringer, on Oct. 20th, 1887, complaining of pain in the chest and difficulty in breathing. He had had good health up to February, 1887, when he began to have attacks of pain in the right mammary region; this was also accompanied with dyspnœa on exertion. There was no history of syphilis or rheumatism. He had had winter cough for six years. State on admission: Great cyanosis of face. Collar of œdema round neck, with great œdema of right arm, and slightly of chest on right side. Abdomen and legs quite natural. Dilated veins at borders of sternum and lower margin of the thorax. Respiration 40, laboured; pulse 106. Chest: Rigid and barrel-shaped. Visible pulsation in second and third right interspaces. Heart's apex beat in sixth space, just outside nipple line. A systolic thrill was felt over the area of visible pulsation, and on auscultation over the same area a loud murmur was heard. The murmur was harsh in character, occupied both systolic and diastolic periods, but had an exacerbation in its intensity during the systole. It never became inaudible, but existed during the whole of the cardiac cycle. The urine contained a trace of albumen. The day after admission the patient suddenly got out of bed, and on the nurse reaching him he was found to be moribund. Post-mortem: A large aneurysm of the ascending and transverse portions of the arch of the aorta was found communicating with the vena cava superior about an inch and a half from its commencement by a small opening, evidently of some age. A second aneurysm was found at the junction of the thoracic and abdominal aorta. The collateral venous circulation, arising from obstruction in the vena cava superior, was dissected out and described. *Remarks.*—1. *The rarity of the occurrence.*—Seven cases are mentioned by Dr. Peacock in vol. xix. of the Pathological Society's Transactions. Dr. F. C. Turner reported a case occurring at the London Hospital in 1885; and in 1887 Dr. Gulliver showed a similar case at the Pathological Society. These two cases are to be found in vols. xxxvi. and xxxviii. of the Society's Transactions. 2. *The question as to when the rupture occurred.*—This probably took place ten days before death, when the patient was seized with sudden pain in the neck, and rapidly became very cyanotic, with extreme œdema of the neck and right arm. The characters of the opening with its rounded edges do not agree with the hypothesis that it occurred at the time of death, and would fit in much better with the view that it occurred some ten days previously. 3. *The significance of the murmur heard over the aneurysm during life.*—The murmur was continuous, but diminished in intensity during the last part of the diastolic period, and increased during the systole. It had a peculiarly harsh quality, resembling the bruits described in the case of arterio-venous aneurysms occurring elsewhere.—The PRESIDENT asked whether the vena cava was occluded to any extent below the point of rupture. It looked as if the main force of the arterial blood stream had been into the veins of the right side of the head and neck.—Dr. HADDEN said he had seen two cases under Dr. Bristowe. In both there were the same continuous murmurs as described by Dr. Arkle. He had performed the post-mortem in the first case and found the connexion between the superior vena cava and the aneurysm. It was important to remember that this was a diagnosable condition, for the only theory that could be mistaken for it would be a very vascular growth.—Dr. CHARLEWOOD TURNER said that in the case brought forward by him the vena cava was entirely obstructed by the aneurysm. It looked as if the aneurysm had gone right through the superior vena cava and cut off the trunk vessels from its tributaries.—Dr. OLIVER said that a large number of cases of aneurysm of the aorta were met with in his part of the country. He had not seen them burst into the vena cava, but into the right auricle. He

agreed with speakers as to the peculiar character of the murmur heard during systole. Where there was regurgitation there might be a difficulty in arriving at a diagnosis. Referring to the inequality of the pupils, he said he had noticed this condition in cases of serious regurgitation, and he was inclined to attribute it to stretching of sympathetic fibres over the heart itself. He called attention to the difference in the contents of the two sacs: near the heart there was no lamination; but lower down, where the current of blood was slower, lamination was well marked.—Dr. FINLAY asked whether there was not a diastolic murmur at the heart's apex in these and similar cases. He said he had never met with a diastolic murmur at the base in thoracic aneurysm, unless the valves were incompetent.—Dr. BRADFORD, in reply, said the vena cava was not occluded below the sac of the aneurysm, and was quite normal. The murmur heard was systolic, and not diastolic.

Dr. OLIVER (Newcastle-upon-Tyne) read a paper on a cause of Speedy Death in Heart Disease, in which he drew attention to gastro-enteritis as a not infrequent cause of the rapidly fatal termination of cardiac disease. He gave a brief record of three cases out of seven or eight which had come under his notice within the last few years. The patients were all upwards of thirty years of age, were all men, and in none of them, either from the previous history or during the course of the illness, could anything be found likely to lead one to suspect that death would be induced by the setting up of a rapidly fatal form of gastro-enteritis. In all, the symptoms were of an acute character; they were frequently very quickly developed, and death preceded by collapse occurred either in a few hours or within a few days. The first symptoms complained of were pains over the region of the stomach and vomiting. Although aortic and mitral regurgitation were the forms of cardiac disease present in all of his cases, Dr. Oliver was not inclined to exempt other forms of heart disease from the tendency to end thus. Convallaria had been the drug taken during life by most of the patients, but several considerations made it clear that the drugs were not responsible for the gastritis. The writer thought that heart disease and gastro-enteritis stood in some obscure causal relationship to each other.—Dr. ANGEL MONEY had observed the mucous membrane of the stomach to be frequently covered with slime, congested, and hæmorrhagic in cases of death from chronic heart and chronic liver disease. He had been struck with the remarkable cleanness of the tongue in some cases of chronic heart disease, in which there was severe epigastric pain, vomiting, and sometimes diarrhœa.—Dr. BARLOW corroborated the previous speaker. He thought that not all cases of the kind described in the paper would be found to be ascribable to the state of the gastric mucosa. At the same time he recognised fully the importance of the changes mentioned, and of the clinical symptoms. He showed a specimen removed from a lad aged eleven, in which the congested and hæmorrhagic states of the stomach were well marked.—Dr. PERCY KIDD corroborated the two previous speakers. He had known severe stomach symptoms to be relieved by cardiac drugs — digitalis and strophanthus. — Dr. A. MORISON thought the vomiting reflex and the congestion secondary. He did not think death was due to the gastric disease.—Dr. K. FOWLER referred to Dr. Mott's paper on Disease of the Heart Muscle published in the *Practitioner*. He asked on what grounds acute gastritis was diagnosed.—The PRESIDENT was much interested in the paper. In aortic disease there was no great mechanical tendency to venous congestion and stasis.—Dr. OLIVER, in reply, said the gastritis met with in his cases was not due to chronic heart disease at all. Only part of the stomach was acutely congested; sometimes it occurred in patches. He observed that acute gastritis was rare, and yet he had met with seven or eight cases within four years. He could see no difficulty in accepting his explanation.

Mr. JONATHAN HUTCHINSON read a paper on a form of Eruption allied to Kaposi's Disease and to Prurigo Æstivalis Adolescentium. The case upon which chiefly this paper was based was that of a lad who had been under the observation of the author from the age of eight to that of twenty. It was illustrated by a portrait taken at the former age, which showed the face covered with vesications, which ulcerated and left scars. The eruption was especially severe in the ears; but it affected, in addition to the whole face, the backs of the hands, and at times sparingly the whole body. It had begun at the age of two by vesications on the face and hands, and it had been remarkable throughout its course for a tendency to relapse in summer. In winter it usually got well. During six years, under Mr. Hutchinson's observation, it had never been wholly cured, excepting in cold weather; but its attacks, quite independently of treatment, became less and less severe, and finally ceased. The lad has now for more than a year been nearly well, but his face is scarred all over as if from severe small-pox, and his ears are reduced to gristle, covered by thin scar. Through the whole of this long liability to skin diseases the lad remained in good health. He never suffered from ordinary chilblains, but the spots in his hands ulcerated and left small scars. There were in the family other brothers and sisters, but none of them suffered in a similar manner. Mr. Hutchinson said that he brought the case before the Society partly because after a very long duration it was now complete, while the excellent portrait by Burgess enabled all to realise its original condition, but chiefly because it showed, he thought, a connecting link between Kaposi's disease and certain other maladies. Essentially it was an example of a vesicating inflammation of exposed parts produced by exposure to the sun. The essential feature of Kaposi's disease was the same liability, but the morbid changes proceeded to yet greater lengths. It was, however, unwise to isolate extreme forms of disease and disassociate them wholly from those of lesser severity which led up to them. Another alliance which the present case had, and one perhaps more close, was with what he (Mr. Hutchinson) had many years ago described as prurigo adolescentium, or prurigo æstivalis. Although it seemed somewhat absurd to call a condition attended by large vesications, as in the present instance, a prurigo, yet he felt sure that all gradations might be found between the two maladies. As an illustration of this latter affection, he referred to a portrait published by the New Sydenham Society. In that case, as in this, a young boy was attacked by an erythematous papular eruption on the face and hands, which was always worse in summer, which troubled him from the age of infancy till the age of twenty, and finally left him covered with scars. He had seen many similar, but less severe, examples of the same. One which he believed to be similar had been shown by Dr. Perry at a meeting of the Dermatological Society. In it also the patient had got rid of the disease on completing adult age, but with the ears much damaged and the face covered with little scars. The cases differed from Kaposi's disease in that there was no tendency to freckles or stigmata. He did not by any means contend that they were identical with that malady, but that they were interesting and important examples of an allied condition, or, in other words, of a disorder of the same regions induced by similar causes. He believed that the condition had not yet been described excepting in connexion with the New Sydenham Society's portrait, which, although similar, was not an exact parallel.—Dr. MONEY mentioned a case which had stopped at vesiculation and had not gone on to ulceration. He said there was a markedly neurotic history in this case, and asked whether anything of the kind had been noted by Mr. Hutchinson.—Dr. GEORGE EASTES pointed out that the eruptions appeared mostly on the covered parts of the body, a fact which hardly pointed to the sun as the direct cause.—The PRESIDENT said that the cases were interesting as examples of special tissue idiosyncrasy. — Mr. HUTCHINSON, in reply, admitted that the rash was seen on covered parts of the body. He thought it was associated with the summer heat as well as to exposure to the sun; hence he had called it a "summer" eruption. The same remarks applied to Kaposi's disease, which undoubtedly extended from exposed parts on to the covered parts. He had not found any neurotic history.

Dr. BISS read a case of Circumscribed Scleroderma (Addison's Keloid), with remarks upon the etiology of the disease. The patient, a girl aged fifteen, was also the subject of congenital stenosis of the pulmonary artery. She had never suffered from any illness except whooping-cough, until four years ago, when a whitish indurated patch appeared on the outer side of the right arm a little above the elbow, which had gradually extended up to the shoulder, following, roughly speaking, the course of the musculo-spiral nerve. Vascular mottling was observable around the indurated patch, and pigmentation like that of a fading bruise, especially at the upper (newest) part. Occasional itching had been felt in the affected region, with frequent cramp-like pain running down to the fingers, and on a few occasions flexor spasms of the index finger and thumb. The muscles adjacent to

the skin lesion were much wasted, especially the deltoid and triceps; and some wasting, though to a much less degree, had taken place in the extensor muscles of the forearm. No other portion of the skin in any situation was altered. Tactile sensibility was preserved in the affected area, all the motions of the limb were easily and perfectly performed, but the grasp of the hand appeared to be somewhat weaker when compared with that of its fellow. The faradaic excitability of all the muscles was unaffected, as also were their galvanic reactions. A loud rough systolic bruit was heard all over the præcordia, most intense at the second left cartilage, but not conducted into the carotids; and there was a definite impulse at the lower sternum. The second sound was clear in every situation, and free from bruit. Nothing abnormal was found in any other organ. The treatment was the administration of liquor arsenicalis, with daily galvanism and massage of the whole limb; but no improvement was noted. The possible etiological relations of the disease with rheumatism were briefly discussed, it being supposed that intra-uterine endocarditis of rheumatic origin was the cause of the pulmonary stenosis found in this patient. The coincidence of rheumatism and of valvular lesions, noted by other observers, was alluded to; as also of cold and wet having been in some cases noted as the apparently exciting cause of scleroderma. The fibrotic indurative character of the lesions was compared with those characteristic of rheumatism, and the influence of that disease upon the lower layers of the integument, as in erythema nodosum; and the subcutaneous nodules noted by Dr. Barlow and other observers were spoken of. The neurotic theory of causation was briefly examined; the asymmetry of the lesion; its correspondence with the course of the musculo-spiral nerve, the wasted muscles being those supplied by that nerve and its branches; and the sensory and motor symptoms connected with the area of distribution of those nerves were pointed out as links of evidence possibly indicating neurotic influence. The cause of the muscular atrophy was then discussed, and after central and peripheral nerve causes had been reviewed and set aside, it was contended that the contraction of the sclerotic tissue formed upon and between muscles, nerves, &c., and the pressure thus brought to bear upon the nerves, bloodvessels, and lymph channels of the affected parts, was the true explanation of this atrophy.—MR. JONATHAN HUTCHINSON said that his experience would not bear out the idea that any connexion existed between the disease and rheumatism. He did not think it began in connexion with any special exposure. Diffuse scleroderma often occurred after cold, but not that limited form of the disease. No hypothesis whatever had been suggested to him by the friends of his patients. The only remarkable feature worth mentioning was the manner in which the disease was always limited to the area first attacked, with only the very rarest exceptions. He thought the atrophy in the subjacent muscles was due to something more than the pressure of the skin. Some nerve influence was present to cause the defect, and this was proved by the concomitant existence of atrophy of nerves, bones, &c. The atrophy was only absent in slight superficial cases, occurring in elderly people. The severer cases occurred early in life. He mentioned that he had never met with a perfectly symmetrical case of the local disease; it might be bilateral, but even then was far from symmetrical. The diffuse form was often symmetrical. He ascribed the lesion to some central influence brought to bear on the vaso-motor nerves, just as in herpes zoster the sensory nerves were attacked.—Dr. BISS, in reply, explained that he did not wish to convey that the atrophy was caused by skin pressure alone, but by extension of the process deeper. In support of the hypothetical association with rheumatism, he quoted a case from Addison's recorded cases, in one of which the outbreak of the disease followed closely on exposure.

MEDICAL SOCIETY OF LONDON.

Paralysis of Trapezius.—Osteo-plastic Resection of Foot.—Congenital Abnormality of Upper Extremity.—Tracheal Murmurs in Cardiac Disease.—Tumour of Upper Jaw.—Erythema Multiforme.

AN ordinary meeting of this Society, the last of the present year, was held on Dec. 17th, Sir Wm. MacCormac, President, being in the chair. It was a "clinical evening," and was devoted to discussion of the numerous interesting cases exhibited.

Dr. HUGHLINGS JACKSON showed a girl aged twelve, who had a Malposition of the Left Scapula consequent on paralysis of the inferior part of the trapezius, that part of the muscle supplied, or mainly supplied, by the spinal accessory nerve escaping. The paralysed portion did not act to faradisation. He had never observed a case of the kind before, but had not rarely seen paralysis and wasting of the upper division of the trapezius (along with paralysis of the sterno-mastoid, larynx, and palate) from intra-cranial disease. The lower angle of the child's scapula was raised to about the level of the fourth dorsal vertebra, three vertebræ higher than the right one; it was nearer the middle line and was "cocked out." The left supra-clavicular space was deeper than the right. The latissimus dorsi acted to faradisation, but was supposed to have slipped off the inferior scapular angle; the serratus magnus acted too, but, probably being at a disadvantage in the abnormal circumstances, its action was not so easily obtained as that of its fellow. To be mentioned as contributing to the deformity were the action of the levator anguli scapulæ, which muscle was in great relief, and the weight of the arm. A full account of the peculiarities of such a case was to be found in Duchenne's "Physiologie des Mouvements," chap. 1. The patient had no other symptoms. She had a fall on her back in October, 1887, which did not hurt her at the time, though she had pain in the middle of the back a few days later, and her mother then noticed that the left shoulder "stuck out," but said that the child had been "on one side" about two years before. Mr. Wainewright had produced in the dead subject a deformity like that presented by cutting away the portion of the trapezius extending from the root of the spine of the scapula to the twelfth dorsal vertebra, together with the lower strands of the serratus magnus.—Dr. C. E. BEEVOR commented on the exceeding rarity of the condition. He had tested the muscles; the serratus magnus acted to the faradic current, though weakly. The scapula was drawn up in a remarkable way, and this condition could occur only in partial paralysis of the trapezius.—Dr. C. Y. BISS asked what was the cause of the lesion.—Dr. JACKSON, in reply, said it had followed a fall, but whether the latter was the cause or the consequence he could not say.

Sir WILLIAM MAC CORMAC showed a second example of the operation of Osteo-plastic Resection of the Foot named after Wladimiroff and Mikulicz. In the former instance the operation was performed for disease of the astragalus and os calcis and the soft parts covering them, the result being rapid and complete recovery, the patient walking long distances without difficulty.[1] In the present instance the operation was undertaken on account of a severe injury to the heel, which had caused extensive sloughing of the soft parts and rendered the foot useless. The steps of the operation were similar to those in the former case, and the result, as in that one, was a bony ankylosis of the divided surfaces of the tibia and fibula on the one hand, with the cuboid and cuneiform bones on the other. In January, 1887, the patient, a youth aged twenty, sustained a severe injury to his right foot in a planing machine. The whole of the soft parts covering the heel were crushed and torn, and separated from the bone underneath, and for this he was admitted to the Stockton-on-Tees Hospital. The flap was not completely detached, so an attempt was made to preserve it by replacing and suturing it, but eventually it sloughed off, leaving the tuberosity and under surface of the os calcis exposed. The skin on the outer side of the foot also sloughed, and the extent of the damage could be estimated by the outline shown in the annexed engraving of the subsequent cicatrix. (Fig. 1.) At one place, however, over the most prominent part of the os calcis, the ulcer refused to heal, and remained open until he came under the care of Sir W. Mac Cormac in St. Thomas's Hospital, in June of the following year. On admission, the foot of the patient was found in extreme extension, and the heel, covered by a thin cicatrix, adherent to the bone. Hyperæsthesia was well marked over the whole surface of the scar, and very intense at certain points, as if nerve filaments were embedded in it. It was evident that no apparatus to bring the foot into better position would be tolerated, and were the malposition rectified the patient would be quite unable to wear any kind of boot; the sensitive scar would not bear the smallest pressure, and, as the bone was unprotected, fresh ulceration would certainly occur. Mikulicz's operation was therefore determined upon, as offering the best means of

[1] For details see THE LANCET, vol. i. 1888, p. 866.

remedying the lad's condition. It was performed in the manner before described, and the limb put upon a straight splint with plaster-of-Paris bandages. The patient made a good recovery (see Fig. 2), but somewhat slower than in the former case as regarded the union of the cut surfaces of bone. Eventually, however, all became soundly healed, and the patient went to a convalescent home on Oct. 31st, with firm but not bony union. At present he is able to walk,

FIG. 1.

Extensive injury to heel, for which Mikulicz's osteo-plastic operation was performed.

FIG. 2.

Stump following the operation.

with the cut surface of bone soundly ankylosed and with every prospect of a useful foot. The power of progression is not far advanced, as only three weeks have elapsed since he first commenced to walk on the stump.

Mr. J. H. MORGAN showed a child which had been brought to the Hospital for Sick Children on account of an Arrested Development of the Right Upper Extremity. The parents had three other children, all of whom were normally formed. The child was born at full term. The scapula appeared to be of normal size and development, but at the apex of the spine was a deep pucker of skin attaching it at this point to the bone. There was a very abbreviated humerus, articulating normally with a glenoid cavity; a very short forearm, in which the two bones were represented, was joined to this rudimentary humerus, and the whole extremity was covered by healthy skin, with an excessive amount of subcutaneous fat. The hand was represented by four digits, the thumb being present, but occupying the position of the index finger, the remaining digits representing apparently the second, third, and fourth respectively, the index being absent. The child was healthy and well formed in other respects. He referred to another case, in which, though the left leg was of normal shape, the femur was much shortened, and on the outer side of the limb the skin was puckered. It had been suggested that these puckers were scars of intra-uterine suppurations; but in neither of the cases he had related was there any foundation for such a hypothesis.—Dr. HADDEN had a case under observation which showed symmetrical dimpling over the shoulder, a similar condition being present in another member of the same family. There was no history to account for it.—Mr. PITTS referred to a case he had previously shown at the Society of double congenital subcoracoid dislocation associated with puckering of the skin. In St. Thomas's Hospital Museum was a cast of a condition similar to that of Mr. Morgan's case, but occurring in an adult.—Dr. BEEVOR remarked on the fact that the hand appeared, pathologically speaking, to be nearer the head than the rest of the extremity, and in deformities was usually preserved at the expense of the remainder of the limb.—Dr. HARRIS related two cases of malformation in infants, both being associated with a history of maternal fright during pregnancy.—Mr. MORGAN, in reply, said that a history of fright was usually forthcoming in these cases, and much reliance could not be placed on it.

Dr. KINGSTON FOWLER showed two cases of Heart Disease associated with Tracheal Murmur. The first was a man aged forty-seven, who had had two attacks of acute rheumatism, in the second of which, occurring eight years ago, the aortic valves were affected. At the base there was a double murmur, the diastolic portion being conducted downwards to the apex, where also during normal respiration a faint systolic murmur was audible. When the breath was held, a loud, short, high-pitched systolic bruit became evident, and a murmur of similar character appeared in the trachea at the episternal notch, the aortic systolic being also audible there. The second case was that of a man aged twenty-nine, who gave a history of cough in the winter for four years, but none of rheumatism. Three years ago, after running, he was seized with syncope, and lost consciousness for ten minutes, and ever since had been short of breath on exertion. There was a loud, rough systolic basic bruit, conducted upwards and audible in the trachea. Dr. Fowler remarked that, although both these patients had valvular disease, the cause of the tracheal murmur differed. In the latter the murmur of aortic stenosis, as was commonly the case, could be heard on auscultation over the trachea. In the former, however, the murmur was respiratory. At each systole of the hypertrophied left ventricle air was displaced from the overlying lung and bronchi, and the sudden puff thus produced was audible in the trachea. In reviewing the literature of the subject, Dr. Fowler referred to his own paper in the Society's Proceedings on Functional and False Murmurs, in which he had drawn attention to the frequent occurrence of tracheal bruits; to a paper by Dr. Drummond on Auscultation of the Trachea and Mouth in Thoracic Disease, in which it was stated that such a murmur was found in seventeen out of twenty-three cases of aortic aneurysm; and to Dr. Moxon's suggestion that in young nervous athletes in whom this bruit was present it was due to the encroachment of a distended left auricle on the left bronchial tube, though the fact that it was systolic in time was against this view. Other causes were temporary excited action of the heart, phthisis with consolidation or excavation of the left lung, and contraction of the left chest after pleural effusion. Tracheal auscultation was of practical utility, because the discovery of a systolic murmur there often confirmed a suspicion that an apex murmur was of "respiratory" origin. The "air puff" in the trachea differed from a murmur conducted there from elsewhere, in being very sudden, short, and sharp, and in usually ceasing when the mouth was closed and the nose held.—Dr. BISS could not agree with the explanation given, for if it were correct such a bruit ought to be present in every case of hypertrophied left ventricle.—Dr. HADDEN said that if it were aerial it ought to be heard as loudly behind as in front.—Dr. ORMEROD had heard murmurs of this kind on inspiration only.—Dr. FOWLER replied that often many abnormal conditions combined to produce the bruit.

Mr. PITTS showed a case of slowly growing Tumour of the Upper Jaw. The patient, a woman, aged forty-two, first noticed the swelling about twelve years ago. It was preceded by a good deal of toothache, and she had a number of stumps extracted, and soon after had an artificial plate with teeth adapted. She had since on several occasions had to have fresh plates made on account of the increase of the swelling. At present the growth affected the whole of the alveolar portion of the left side of the jaw and also the hard palate; it was apparently bony in character, and without pain or tenderness. It would appear to be of the nature of a hyperostosis of the alveolus. The growth, though progressive, was so very slow that it would have been very doubtful whether operative interference was desirable, and

it was for the purpose of obtaining opinions on this point that the case was brought forward. Mr. Pitts was of opinion himself that it would be better to keep the case under observation, and to be guided by the rate of growth and the amount of inconvenience to the patient.

Dr. CECIL Y. BISS exhibited a case of Erythema Multiforme, occurring in a man aged seventy-four, who was apparently otherwise in perfect health. There was a history of rheumatism thirty years ago, and severe attacks of gout during the last fifteen years. He became unwell on the 4th inst., and, after three days of malaise, an eruption came out, accompanied by sore throat, and much tingling and itching of the affected parts. The rash first appeared on the backs of the hands, and spread rapidly over the extensor surfaces of the limbs, the lower part of the back and abdomen, the nates, posterior aspect of thighs, and arms. The face, neck, and upper parts of the trunk had escaped. Aching and stiffness were felt in the thighs. The eruption consisted of maculæ from the size of a hempseed to a half-crown, rapidly increasing in size, and with a tendency to coalesce. They were dark chocolate red, with violet-coloured centres, distinctly raised above the skin. Over the anterior aspect of the thighs the maculæ had coalesced into an enormous patch as large as the whole thigh. The colour could not be wholly displaced by pressure from any of the patches, and over the thigh pressure made no difference at all. It was clear that much subcutaneous hæmorrhage had taken place. In four days the patches had changed to a lilac colour, bordered with raised red edges, and, the patches being rounded, the aspect of the eruption was that of a number of rings intersecting in a gyrate manner. Newer patches had come out principally over the lower part of the legs. The noteworthy points of the case were: 1. The age of the patient and his previous freedom from like eruptions. 2. The severity and amount of the eruption. 3. The abundance of subcutaneous hæmorrhage. 4. The production of two at least of the typical forms (maculæ and gyrate rings) which had given this disease its polymorphic character. 5. The analogies suggested with purpura rheumatica.

Mr. HERBERT ALLINGHAM then demonstrated a case of Resection of the Condyle of the Inferior Maxilla. The particulars of the case were related at the last clinical meeting of the Society (*vide* page 1071).—Mr. PITTS said the case showed the value of early operation in young subjects. He had seen atrophy of the jaw follow fixation for cervical spinal disease.—Mr. MORGAN asked if the amount of alteration in the chin had been noticed; had it preceded or followed the operation?—Mr. ALLINGHAM, in reply, said the jaw, which was atrophied before the operation, had since grown *pari passu* with the boy.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Action of certain Drugs on the Utero-ovarian System.—Accidental Rashes in Typhoid Fever.

THE opening meeting of the Section of Medicine was held on Nov. 16th, the President (Dr. Atthill) in the chair.

Dr. LOMBE ATTHILL said, in discussing the Action of certain Drugs on the Utero-ovarian System, that much obscurity existed as to the action which medicines exercise on the utero-ovarian system, and consequently the greatest empiricism prevailed in prescribing for cases in which the organs referred to were engaged. The great majority of females were under the impression that no medicine of any kind should be taken during the continuance of the menstrual flow, and that to take even a mild purgative would be injurious, and many practitioners shared in this unfounded prejudice. He was perfectly satisfied that none of the ordinary medicines, taken in moderate doses, produced any effect on the function. To this statement one exception must be made; drastic purgatives, taken in large doses, seemed in many women to increase the menstrual flow. When we come to consider the action of drugs in cases in which menstruation (*a*) does not appear at all, or very irregularly, (*b*) in insufficient quantity, or (*c*) is unduly profuse, the first question is, does ergot, savin, quinine, or even strychnine, in medicinal doses, produce any appreciable effect on the muscular fibres of the normal uterus? To him it seemed that writers and practitioners assume that these drugs have this effect, without sufficient grounds to justify their belief. For his part he doubted it. Quinine he had administered daily in doses from two to ten grains during the menstrual period, and never observed it to produce any pain or discomfort, which it might be expected to do if it induced contraction of the uterine fibre; nor had it ever once among his patients exercised any influence on the amount or duration of the period. His experience of the effects of strychnine was the same. Again, he had given ergot alone, or combined with other drugs, as an emmenagogue, and had never known it to have any effect as such. With reference to the action of drugs in cases in which menstruation is too profuse, or in which actual uterine hæmorrhage occurs, putting aside those cases which depend for their origin on abortion, pregnancy, or parturition, the medicines known as astringents might at once be discarded as useless in cases of uterine hæmorrhage. He did not believe that tannin, tannic, or gallic acid, or any other astringent, had any effect whatever in these cases; indeed, their administration was worse than useless—he believed it to be injurious; and the mineral acids seemed to him to be of no greater value. Full doses of the tincture of the perchloride of iron had, in his hands, sometimes been of great use in checking the loss, but it was always in anæmic women, and its beneficial effects were probably due to the iron it contains, but at best it was a very unreliable agent. Ergot was the only one on which he placed any reliance. With respect to the action of medicines in arresting hæmorrhage where malignant disease of the uterus existed, he had little to say; none could be relied on. He had sometimes thought that the exhibition of Chian turpentine, as recommended by Dr. Clay, did good in this respect, but further experience had lessened his faith in it. Tincture of the perchloride of iron, in full doses, was also sometimes useful, but at best any good done was but transitory.—Dr. J. A. BYRNE said it was an established fact, though difficult of explanation, that certain medicines—e.g., savin, rue, and aloes—have peculiar effects on the female generative organs. This effect was not due to purgation; for it was not found that a good dose of Epsom salts brought on menstruation. No doubt active purgation had occasionally produced it; but a medical practitioner who wanted to produce an emmenagogue effect would not order sulphate of magnesia. It was difficult to explain exactly how the medicines produced the effect. At the same time, it was abundantly clear that savin, rue, and ergot stimulated uterine action. Hence the necessity of careful examination. He considered it a dangerous doctrine to broach that in the early months of pregnancy ergot might be given with perfect indifference as to the result. Such a procedure did not accord with his experience. In threatened abortion he would feel it his duty not to stimulate but to pacify the nervous system; and no matter how the action of ergot might be explained, it acted as a stimulus to the uterine fibres. Electricity, too, instead of retarding, would probably expedite the expulsion of the fœtus. As regarded the question of nomenclature, he did not see why the word "emmenagogue" should be discarded; it was as good a name as could be suggested.—The PRESIDENT, replying, said he had never experimented medicinally with an impregnated uterus, and he had never given ergot except in cases of threatened abortion. He believed that ergot had no effect in producing abortion, though given with the intent of producing criminal abortion; and his belief was founded on extensive experience in administering ergot as a preventive of post-partum hæmorrhage. Ergot was much more likely to prevent than to produce abortion, and he had prescribed it hundreds of times. He had never given Epsom salts as an emmenagogue.

Dr. J. W. MOORE read a communication on Accidental Rashes in Typhoid Fever. In his paper the author explained that it was not his intention to allude to the essential rose-spot rash of typhoid fever; or to the more common epiphenomena of the disease connected with the skin, such as *taches bleuâtres*, purpura spots, vibices, and sudamina, or sweat vesicles; or, lastly, to the coexistence with typhoid fever of other specific diseases showing characteristic eruptions—such as scarlatina, measles, variola, and, above all, typhus. He desired rather to draw attention to certain other accidental or adventitious appearances of the skin, which were of somewhat rare occurrence and, from a diagnostic point of view, of considerable importance. These were—(1) simple hyperæmia; (2) miliary eruptions; (3) erythematous rashes; and (4) urticaria. Dr. Moore then detailed a series of cases which exemplified the occurrence of these accidental rashes, and summed up as follows:—1. Not infrequently, in the course of typhoid fever, an adventitious eruption occurs, either miliary, urticarious, or

erythematous. 2. When this happens, a wrong diagnosis of typhus, measles, or scarlatina respectively may be made, if account is not taken of the absence of the other objective and subjective symptoms of these diseases. 3. The erythematous rash is the most puzzling of all; but the prodromata of scarlet fever are absent, nor is the typical course of that disease observed. 4. This erythema scarlatiniforme is most likely to show itself at the end of the first or in the third week of typhoid fever. 5. In the former case, it probably depends on a reactive inhibition of the vaso-motor system of nerves; in the latter, on septicæmia, or secondary blood poisoning; or both these causes may be present together. 6. The cases in which this rash appears are often severe; but its development is important rather from a diagnostic than from a prognostic point of view. 7. Hence no special line of treatment is required beyond that already employed for the safe conduct of the patient through the fever.—Dr. DUFFEY asked whether there had been eliminated the possibility of the rash being due to drugs administered during the course of the disease.—Dr. POLLOCK pointed out as remarkable that, while among the writers on erythematous rash some did not allude to it at all as occurring under similar conditions of fever, others only in a slight degree, and the rest observed that the rash occurred in the first week or early stage of the fever, in his case the rash did not appear until the third week, although the rose-colour spots had been out for a fortnight before. The pulse was never very high, but on the night of the eighteenth day it suddenly rose to 108°, and the rash was then noticed coming over the back, chest, and abdomen. Next day there was a sudden collapse—the temperature fell to 96° and the pulse was low and very weak. On the following day Dr. Moore saw the patient, and on the day after the rash came over the extremities.—Dr. DOYLE did not think Dr. Moore was justified in generalising from particular cases. Instead of reviewing the authorities on the subject of rashes, he thought it would have been better to have given full and particular details of what was observed and done in the cases.—Dr. BEWLEY remarked that, in his experience, in recent outbreaks of typhoid fever, rashes were more common in the third and fourth weeks of the fever than in the early stages, contrary to what was mentioned in the text-books.—Dr. WILLIAM MOORE remarked that, looking for many years at enteric fever, he had seen erythematous eruption, as a rule, early in the disease, not late; and in scarlatina there was an unmistakable temperature, which, in his view, was the key to a differential diagnosis.—Dr. J. W. MOORE, in reply, said that in Case 1 no medicine had been administered for some days, and the only possible cause of the efflorescence was the extreme rise of temperature, followed by sweating. It was not true erythema, but an efflorescence on the skin. In Case 2, he understood from Mr. Foy that the patient had been taking morphia to produce sleep, but only in small quantities; and that drug could scarcely have had anything to do with the development of the miliary eruption. In Dr. Pollock's case only quinine in two-grain doses had been given several days before the rash appeared, but it disagreed and was stopped. As regards Mr. Doyle's criticism, so far from generalising, the cases in question were brought forward as typical ones, with the object of drawing attention to a rash which occasionally occurred in typhoid fever resembling scarlet fever, and the object of the paper was to indicate how to distinguish between erythema and true scarlet fever.

Reviews and Notices of Books.

On Cancer of the Uterus. Being the Harveian Lectures for 1886. By JOHN WILLIAMS, M.D., F.R.C.P., Professor of Midwifery, University College, London, &c. Pp. 119, with 18 Plates. London: H. K. Lewis. 1888.

THESE lectures originally appeared in the pages of THE LANCET shortly after their delivery before the Harveian Society. They are now published in collected form and illustrated profusely. It has rarely been our lot to examine critically a clinical monograph of such excellence. The value of the work lies in the threefold manner in which it has been constructed—facts gained from clinical and from pathological observation, and reasoning from these facts in order to gain an insight into the natural history of the disease and the rational methods of its treatment.

We heartily commend the author's advocacy of laboratory research in aid of bedside investigation, for, as he insists, the microscope gives valuable information as to the nature of the malady whilst yet in its earliest phases—long, perhaps, before the clinical features are sufficiently pronounced to enable a positive diagnosis to be made; and here, be it noted, the microscopical examination must not be limited to the débris derived from scrapings, but must include sections of portions of the morbid tissue.

The work is divided into sections, as the cancerous disease affects respectively the portio vaginalis, the cervix, and the fundus uteri. For the sake of differential diagnosis there is also included a concise account of the anatomy and development of so-called erosion, ulceration, or abrasion of the os uteri. As Dr. Williams contends, the condition is neither an ulcer, an abrasion, nor an erosion, for "there is no loss of tissue, and the surface is covered by epithelium, but it is epithelium of the columnar kind. The columnar epithelium has encroached upon the territory of the squamous and displaced it," and "a so-called 'erosion' differs from cancer in that the epithelium consists of a single layer and assumes no aberrant forms, and from adenoma of the cervix in that the glands are comparatively superficial." As regards the origin of the "glands of erosion," the author considers Ruge and Veit's theory, that they are developed from the deeper layer of the surface stratified epithelium, as an improbable one, and contends that they are either formed from a downward growth of the glands of the lower part of the cervix, or by a direct extension from the cervix to the os of the columnar epithelium of the former. We meet with the important assertion that erosion and cancer of the cervix are much alike in their early stages. As regards cancer of the portio vaginalis, it is shown that this is always of the squamous variety, that it has little tendency to infiltrate deeply, but is disposed rather to extend laterally. Dr. Williams describes two forms of malignant disease of the cervix—malignant adenoma and cancer proper. In the former, he asserts, the epithelium retains its normal arrangement and form, whilst in the latter there is aberration from the healthy type in each of the above-mentioned particulars. We would, however, emphasise the author's prefix "malignant" to these adenomata. They are what are commonly known as adenoid or glandular cancers. They differ anatomically from the glands of erosion in that they extend deeply into the tissues of the cervix, and grow continuously unless extirpated by operation. True cancer of the cervix is demonstrated to start from the cervical glands, and not from the surface epithelium of the canal. It has a preference for the posterior lip. We give the following quotation as having an important bearing on the question of operative procedure for removal of the disease: "The lines of growth of cancer of the cervix are mainly outwards and downwards, in such a direction as to involve the portio vaginalis and the vesico-vaginal and recto-vaginal septa, but respecting the mucous membrane of the vagina." The author, in a closely reasoned argument, shows that laceration of the cervix is not a common cause of cancer, and that it is undesirable to resort to Emmet's operation for the repair of such lacerations. Cancer of the cervix is proved statistically to select the decade of life covering the menopause; whereas, on the other hand, cancer of the fundus is rarely seen under fifty years of age. Cancer of the fundus is usually of the diffuse variety, although examples of the nodular variety are occasionally met with. The disease which originates in the glands is sometimes associated with a villous outgrowth, although as regards origin it is uncertain which has precedence in point of time. When coexistent and amal-

gamated with uterine myomata, the cancerous element does not originate in the former, but invades it in the continuity of its growth.

The concluding pages of the work are occupied by a discussion of the relative values of the two methods of operation—supra-vaginal partial extirpation, and complete removal of the uterus. Total excision of the organ is the only procedure which offers a reasonable hope of cure when the body is affected, and this is better done through the vagina than by abdominal section. Where the disease is limited to the cervix or to the cervix and the adjacent part of the mucous membrane of the body, the partial operation is considered preferable to complete removal, as being less dangerous in itself whilst equally valuable as a means of relief and possible cure.

The book is a perfect example of what a clinical monograph should be. There is no appeal to transcendental pathology, no resorting to exploded and current theories save for the purpose of giving point to the author's convictions as formed from years of study both at the bedside and in the laboratory. The rules of practice laid down are fully warranted by the careful and complete details of facts observed and recorded.

We cannot too strongly recommend these lectures to members of the profession as worthy alike of their careful study and of the reputation of the author. The naked-eye and microscopical characters of cancer of the uterus are admirably delineated. The letterpress is all that can be desired.

The Carmichael Essays for 1887.—1. *The Medical Profession of the United Kingdom.* Being the Essay to which was awarded the First Carmichael Prize of £200 by the Council of the Royal College of Surgeons in Ireland, 1887. By WALTER RIVINGTON, B.A., M.B., M.S. Univ. Lond., F.R.C.S. Eng., Surgeon to the London Hospital, Lecturer on Surgery at the London Hospital Medical College.—2. *The Medical Profession in the Three Kingdoms.* The Essay to which was awarded the Carmichael Prize of £100 by the Council of the Royal College of Surgeons in Ireland, 1887. By THOMAS LAFFAN, M.C.P.I., Cashel.—Dublin: Fannin and Co. London: Longmans and Co.; Baillière, Tindall, and Cox. Edinburgh: Maclachlan and Stewart. 1888.

THE Carmichael Essays are becoming quite valuable as books of reference for all matters of fact and of opinion respecting the organisation and condition of the profession. We owe a debt of gratitude to Mr. Richard Carmichael for his generous bequest of £3000 to the College of Surgeons in Ireland, out of which two prizes of £200 and £100 respectively were to be adjudged every four years to the authors of the best essays on—(1) the State of the Medical Profession in its different departments of Physic, Surgery, and Pharmacy; (2) the State of the Hospitals and Schools of Medicine, Surgery, and Pharmacy; and (3) the State and Mode of the Examinations of the different Licensing Colleges or Corporations. Mr. Carmichael during his life was a thoughtful medical reformer. He anticipated and urged much that has since been effected in legislation; he did much to improve and liberalise the College of which he was a distinguished member; and his bequest does much to secure a large and enlightened view of the questions which agitate and affect the profession. It is now twenty years since the first Carmichael Prize Essay was written by Dr. Mapother. It was less pretentious in form and size than its latest successors, but it may yet be read with much pleasure and instruction, and is a link in the chain of continuity between the profession under the early influence of the legislation of 1858 and the present state of things brought about by the Act of 1886. The first Carmichael Prize for 1887 was awarded to Mr. Walter Rivington, surgeon of the London Hospital; the second to Mr. Thomas Laffan of Cashel. The essays are well worth the prizes they have respectively received, and may be warmly commended to all those who are interested in the organisation of the profession and of its various bodies, in its social and economic aspects, and in medical education and the various schools whose function it is to carry it out, and the numerous bodies, universities, or corporations whose duty it is to bestow medical qualifications on those thought worthy.

Mr. Rivington's essay is a large volume of 1200 pages, giving with wonderful fulness a history of the profession from the Druids down to the admission of the dentists, and, later still, to the reconstruction of the Medical Council in 1886. It is difficult to find anything omitted, and the statistics of examining bodies, of the General Medical Council, of the Army and Navy Medical Services, of Dr. Ogle on the mortality of medical men, of hospitals in England, Ireland, and Wales, of cottage hospitals, of medical students and their strange migrations, make the book a most indispensable one for reference. Ours is a wonderful profession, from the days when archbishops were the apothecaries of kings, or Erasmus was studying Greek under Linacre, to the present day, when Greek in the profession is conspicuous by its absence, but, according to Sir Walter Foster, nearly every man in a provincial town can operate for hernia. And the history of it all is given with much detail and much intelligent criticism by Mr. Rivington.

Mr. Laffan is too well known as a redoubtable reformer to need any introduction to our readers. He does not go so far back with the history of the profession as Mr. Rivington, and his book is a modest volume of under 400 pages. But he, too, gives much valuable statistical information, and he discusses burning questions of present medical politics in a fearless and independent style. He begins his book with a lament that the Act of 1886 should have placed the profession in an increased degree under the rule of the Privy Council, and he does not spare either the Medical Council or the examining bodies for what he considers their shortcomings. One of the most interesting parts of his book is the description of the Irish dispensary system, though his account of the committees which elect the medical officers does not reconcile us to his suggestion that such a system should be introduced into England. His strictures on the Irish workhouses are very severe, and should receive attention. Mr. Laffan displays great interest in the principles of medical education, and would oblige every student to take a degree in Arts before beginning medical work. He strongly supports the apprenticeship system, and will admit no substitute for it; he would place it in the middle of medical education. And he sighs for the time when the Medical Council will carry out its plan for visiting medical schools, of which he says—and many will agree with him—we have too many.

NORTH-WESTERN BRANCH OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting of this branch held on the 13th inst. a discussion took place upon a paper read at a previous meeting by Dr. Jordan on House Drains, in which all present took part, and the following resolution was passed: "That it is expedient (1) that every local sanitary authority shall have a complete plan of the sewers and drains of the district, a copy of which shall be kept for inspection at reasonable hours by any ratepayer; (2) that no change shall be made in the drainage of any premises, or any addition made thereto, without permission being first obtained by the local sanitary authority, the plans of the same being deposited at the office of the local sanitary authority."

OPEN SPACES.—At a meeting of the Kyrle Society, on Saturday last, to promote the scheme for acquiring the Lawn, Lambeth, as a public park, at which Lord Hobhouse presided, it was announced that the vendor would accept £43,000 for the land, provided the balance of the purchase money was raised by the 31st prox.

THE LANCET.

LONDON: SATURDAY, DECEMBER 22, 1888.

SOME of our contemporaries, who never seem happy unless they have a sensation for their readers, amounting almost to a scandal, have been greatly excited over a paper by Mr. MICHELLI, the secretary of the Seamen's Hospital Society, and late secretary of St. Mary's Hospital, entitled "Hospital Extravagance and Expenditure." We regret that Mr. MICHELLI in his paper should have said many of the things that he has said, that he should have said them in the way he has said them, and finally that he should have chosen this particular moment to say them. We are in the very atmosphere of Christmas, and the hospitals sorely need the benefit of the unstinted benevolence of Christmas-time. Men and women and children with disabling diseases fill our hospitals, or rather do not fill them, as Canon FARRAR has lately reminded us. Dives feeds more sumptuously than ever, with all the disadvantages of plethora to himself; and Lazarus—to the number of hundreds—shivers outside even the hospital doors, because the rich hold back their subscriptions. This is the time when Lazarus's case has the chance of a generous consideration, and unfortunately it is chosen for something like a wholesale charge of extravagance against hospital administration by one who ought to know. The London hospitals are more particularly aimed at in the charges made. We entirely approve of criticism, but it should be well timed, well based, and kindly administered. His criticism was probably not meant to be otherwise. But it lends itself to sensationalism, it is ill timed, and we venture to think that in regard to the great hospitals of London it is very infirmly based. Mr. MICHELLI as good as admits the last point, for his greatest complaints refer to small and special hospitals, whose administration, he says, costs from 50 to 75 per cent. more per bed than that of the large hospitals. Mr. MICHELLI distributes the blame of this alleged extravagance very impartially, and widely, from the house surgeons and physicians, who administer an extra egg or glass of port wine to a patient, and the members of the medical staff, who, he says, use much more expensive and showy instruments in hospitals than they do for their private patients, up to the committees of management, who must be ultimately responsible for the greatest, and what he calls the indirect extravagance—the enormous sums spent in raising money—ranging "in many instances from 25 to 50 per cent. of the sums received from subscribers, who are in utter ignorance that only ten shillings of the sovereign they give reach the poor for whom it is intended." Here a charge of something like positive fraud is made, which should have been substantiated by the most particular data. He goes on to state that "in some instances the cost of collection, printing, stationery, commission, and advertising," which in such instances "eats up half of the money, is, in the accounts, deducted from the total amount collected, and only the balance is placed to the credit of the charity." Such vague expressions as "in some instances" is not enough. Let us have the instances. Again, as an example of infirm basis for the suggestions of serious charges, we complain of a statement that "a collector" to several charities had told Mr. MICHELLI that "he had been offered 40 per cent. on new money if he would canvass for a particular small special hospital." We think it unfair to our great hospitals, on such a flimsy ground, to associate them in the same paper with such methods. Before trying to show that the general suggestions of this paper are unjust, and at this moment particularly ungenerous, to those who are conducting our great hospitals in spite of enormous difficulties, let us say one word in defence of the resident medical officers and their superior honorary colleagues. Can anybody imagine that the extra egg, or even the extra sole, or "grapes for that child" ordered by the house surgeon at the instance of a sister or nurse counts for much in the expenditure of hospitals? As to the display of more costly instruments by the surgeons than any private surgeon might be able to take out of his bag, the charge is still more unreasonable. A hospital having hundreds of the most difficult cases to treat should have the latest and the best appliances at hand, and the charity that would withhold such perfection of instruments for surgeons giving their services gratuitously is not worth the name.

But do our great hospitals justify this charge of extravagance? Let it be remembered that the claims on benevolence have multiplied with the growth of the press, that advertisement is indispensable, and that the competition of far less meritorious objects is intense. We do not care to justify all details of expenditure. We willingly admit that subscribers need to look more closely into these details. What is most wanted is that they themselves find, not subscriptions only, but other subscribers, so as to save commissions and advertising expenses. But do our great hospitals deserve to be held up in sensational newspapers, by a hospital secretary and the member of an Association meant to promote the welfare of hospitals, as extravagant? We think not. Let us apply some test. The Hospital Sunday Fund has had this question under its eye very keenly for years, and judges hospitals very much by this test: the relation of cost of *management*—i.e., incidental expenses of all sorts—to that of *maintenance*. We acquit our great unendowed hospitals of extravagance. And this answer is given not on the hearsay of a stray collector or a scattered instance or two, but the well-considered statistics of well-known London hospitals. We shall do Mr. MICHELLI the compliment of taking his hospital—the Hospital for Seamen—as a model one. Seamen are the most popular of men, and it may be supposed that the expenses of management in his hospital fairly represent indispensable expenses. Well, what do we find?—that the expenses of management in his own hospital are 13·019 per cent. But taking twenty-four of the hospitals of London—viz., Charing Cross Hospital, the French Hospital, the German Hospital, the Great Northern Central Hospital, Guy's Hospital, the Italian Hospital, the Metropolitan Free Hospital, the Miller Hospital and Royal Kent Dispensary, the North-West London Hospital, the Poplar Hospital, the Royal Free Hospital, St. George's Hospital, SS. John and Elizabeth Hospital, St. Mary's Hospital, Seamen's Hospital Society, the Middlesex Hospital, the Training Hospital

(Tottenham), University College Hospital, West London Hospital, Westminster Hospital, the City of London Hospital for Diseases of the Chest, Hospital for Consumption (Brompton),—and taking the average of their cost of management, we find it to be only 13·097 per cent.; while some, such as the London Hospital, are as low as 6·894, and St. George's Hospital is 6·269 per cent. We regard this as a sufficient answer for the moment to Mr. MICHELLI's paper. We are certain the Hospital Sunday Fund is most attentive to extravagance of administration, though it might do more to help the public to choose its hospitals. In conclusion, we must repeat our conviction that great loss will be suffered by the hospitals this Christmastide through the ill-timed publication of this paper; whilst the amount of harm likely to accrue to the next Metropolitan Hospital Sunday collection is incalculable. And this under the auspices of the Hospitals Association!

WE commented recently upon the returns obtained through the agency of the Collective Investigation Committee of the British Medical Association regarding the effect upon longevity of the use of, and abstinence from, alcohol; and we advised our readers to suspend judgment upon statistics which were obviously insufficient to warrant any positive conclusion upon a great social and moral question. Dr. OWEN'S figures have certainly been a severe blow to the teetotal party, who never tire of assuring us that alcohol is a poison, and that even in the strictest moderation its use is in the long run wholly pernicious; but they seem to us to prove too much. If they had shown that the temperate use of alcohol was, for the average man or woman, the safest course as regards health and the prospects of longevity, that conclusion would have commanded wide and influential professional support; but when they go a great step further, and appear to show that systematic intemperance is less injurious to the individual than total abstinence, we feel sure there must be some fallacy in an argument leading to a conclusion so opposed to common observation and experience. We wish to-day to point out that the alcohol question is for many reasons one of extreme difficulty, and that any hasty dogmatism regarding its issues is on every ground to be strongly deprecated. Scientific workers, whose conclusions sooner or later dominate opinion and practice, must above all things avoid both the spirit and the tactics of fanaticism.

What do we know positively and definitely about the effects of alcohol upon the human frame? Very little, it must be owned, if no conclusion be valid which is the object of cavil and assault; but certain deductions command such a preponderance of support from all those whose opinion is of most value, that they may be fairly accepted as true. We need not waste time over the controversy whether alcohol be a stimulant or a narcotic—a useless bit of logomachy, of which the fruitlessness would be immediately evident if disputants could be always compelled strictly to define the terms which they employ with so much freedom; but let us look at the broad facts of the question. Two facts stand out in strong relief—viz., that alcohol in some form is part of the daily diet of the vast majority of the individuals comprised in the most vigorous, progressive, and enlightened races in the world; and, secondly, that beyond doubt it is a fertile source of disease.

As regards the former point, if the effect of alcohol in every case and in all degrees of moderation were inevitably injurious, we should expect to find that the most vigorous workers and the best thinkers would be compelled to forego an indulgence which *ex hypothesi* would cripple their powers and give their abstaining competitors an immense advantage in the struggle of life. As a matter of fact we find nothing of the kind. The men who do the best work of the day in all the departments of human activity find, as a rule, that strict temperance is absolutely essential if they are to keep in the front rank, but only an insignificant minority of them become total abstainers. Not a few, desirous of making the very utmost of their powers, try total abstinence as an experiment, and deliberately return to the prudent use of alcohol as the better way. These facts are surely incompatible with the theory that alcohol is always necessarily injurious.

On the other hand, it is abundantly clear that alcohol is one of the most fertile sources of disease, and there is immense difficulty in ascertaining where its beneficial effect ends and its injurious effect begins. The physiological amount of alcohol defined as constituting the limit of moderation is obviously quite an arbitrary standard: true, perhaps, for many; untrue, certainly, for some. If all men possessed scientific knowledge, capacity for self-observation, and self-control, we might safely say that each man should find out for himself what quantity of alcohol was a help, and adhere to that as being moderation for him; but it is obvious that these conditions do not exist, and their absence constitutes one of the most fundamental difficulties of the subject. Much would be accomplished if we had satisfactory data to show whether total abstinence is on the average helpful or hurtful to health. We may look for some help towards the elucidation of this problem from the returns of the insurance companies, many of whom now register abstainers and non-abstainers in separate sections. The returns on this subject, if *very* decisive, would possess great value, but they are open to much fallacy. A man becomes an abstainer often from some definite reason, and this reason may affect his prospect of longevity. He may renounce alcohol for the same reason as that which may make him renounce tobacco—viz., that he is of an excitable, nervous constitution, and finds all stimulants injurious; or, on the other hand, as recently pointed out by Sir WILLIAM ROBERTS, a man may abstain because he is of robust physique and feels no craving for any form of stimulation. In fact, in many lives the use or disuse of alcohol is altogether a minor factor in the prospect of longevity, and this fact deprives statistics of much of their apparent value.

Again, the non-abstaining section will include a certain proportion of men who shorten their lives by intemperance, and hence the average of the whole class is reduced by the frailty of a few. This fact tends to give total abstinence an apparent advantage over moderation, and serves to obscure the main issue, which must ever be, Is total abstinence or the prudent use of alcohol the wisest course for those who wish to do the largest amount of good work

in the world, and to prolong their lives as far as may be possible?

We have looked only at the physical side of this question, but we cannot forget that it has also a moral side. The fact that alcohol, apart from its effects upon the body, is a great source of pauperism and crime, should certainly lead us to scrutinise with anxiety statistics which would seem to encourage men in the probably mistaken idea that they can indulge freely without fear of physical injury.

THE inquiry into the alleged lunacy of Major SAMUEL OWEN, held at the beginning of the present month by Mr. NICHOLSON, one of the Chancery Masters in Lunacy, presents us with many features of peculiar, if not uncommon, interest. The investigation was held at the instance of the Major's two sons who petitioned on the ground that their father was of unsound mind and incapable of managing his affairs. The counsel for the petitioners stated that Major OWEN, after serving with distinction in India, retired from the army and took to the study of spiritualistic literature. There was no doubt, he said, that the Major was at present firmly convinced that he was constantly in communication with the unseen world, his theory of life being that he must obey the behests of persons who were neither tangible nor visible to mortal hands or eyes. Every action of his life was governed accordingly, even to the most trivial points. In the house at Ventnor, called Mount Sion, there was one room fitted up in a most gorgeous way, and described as the "Holy of Holies," and into which profane persons were not allowed to enter, but where the most serious communications were alleged to take place between the supernatural and those persons who were allowed by the Major to be present. In this apartment a young married lady, a very strong medium and helper of the Major in his spirit work, was confined of a female child. Major OWEN was stated to be under the belief that the infant was miraculously and immaculately conceived, and expressed great disappointment at the sex of the child, as he thought it would have represented the Second Person of the Trinity. Besides this statement, as reported in the public press, evidence was given of strange and, to say the least, eccentric ceremonies and functions in the "Holy of Holies." According to the evidence of his sons, Major OWEN held that he received commands to go to Egypt to the spirits named "Jesu," "The Eternal," and "Melchisedek," and that the lady whose immaculate conception has been referred to was "not a woman, but an angel, who spent more of her time in heaven than upon earth." Much evidence was also adduced as to the strange mystic beliefs of the Major. On the other hand, evidence was given by a bank accountant that Major OWEN showed himself to be very keen as to his banking account, and had never said anything to lead him to suppose that he was of unsound mind or unable to manage his own affairs; and a retired tradesman, whose tenant Major OWEN was, had never noticed anything unusual either about his conversation or conduct. Major OWEN himself is reported to have shown great acumen and calmness in replying to the questions of the Master; and he asked the jury not to believe the evidence against him. It is stated that the only time the Major appeared at all excited was when he replied to a question as to the origin of the proceedings against him, his answer being "Money." His counsel, further, read a letter from one of the sons asking his father to lend him £600.

As regards the medical evidence, several witnesses bore testimony on both sides. One Fellow of the College of Physicians stated that, from an interview he had with Major OWEN, he had come to the conclusion that he was not only of unsound mind, but dangerous; and that when he asked him if he would do anything he was told to do by GOD, the Major said, "Yes, even to stabbing my own son." Another Fellow of the College said he had not the smallest doubt as to the Major's sanity. "He is as rationally sane as man can be, though, in consequence of the abstruse nature of Major OWEN'S studies, his views are not easily comprehended by everyone." Mr. NICHOLSON having summed up, the jury, after an absence of thirty-five minutes, intimated their finding that Major OWEN was of sound mind and capable of managing his own affairs. Twelve jurymen were for and eleven against this verdict.

Upon the issues submitted to the jury, and in face of the whole evidence, it is impossible for us to say that the verdict of the jury was a wrong one; and yet the fact that the jury were as nearly as possible evenly divided in their opinion cannot be overlooked as an indication of the estimate in which the Major's sanity and capacity for managing his affairs was held by them. It is the twofold nature of the issue in cases of this sort that gives rise to difficulty and conflict in the minds of a jury, and which naturally leads them to give an alleged, if not an undoubted, lunatic the benefit of a wholesome elasticity of opinion in the matter of his capability to manage his affairs.

Insanity is but a relative term after all, and even when we get the requisite amount of eccentricity of belief and conduct to constitute what we choose to call insanity, it by no means necessarily follows that the individual is unable to manage his affairs. Mere *belief* in spiritualism or in supernatural agency and influence cannot be held of itself to constitute insanity, any more than a fit of "the blues" can be construed into melancholia, or an outburst of unreasoning fury into mania. It is only when the conduct or the eccentricity arising from any of these states of mind becomes persistently and extravagantly outrageous or indecent, or when it becomes a source of danger, that the sense of social order existing in the public mind comes to demand that the ordinary civil rights and responsibilities of a person so committing himself shall be suspended under the provisions of the laws relating to lunatics. No matter how desirable it may be for the individual's sake to have early recourse to effective supervision and to curative treatment, and no matter how often and how clearly the necessity for this is demonstrated by reliable medical authorities, the public have a perfect right to resist any premature labelling of individual members of the community as irresponsible and incapable lunatics. The public have an equal right—which, to their cost, they often persist in overlooking till too late—of demanding the removal into safe care and keeping those members of the community who, by reason of their mental derangement, are unfit to take proper care of themselves, or are either threatening in their attitude or show more active signs of ultimately proving dangerous. If such persons are per-

mitted to be at large, it must only be on sufferance, and the risk incurred must rest upon the public themselves.

In Major OWEN'S case there was no evidence whatever reported of incapacity to manage his affairs; in fact, the evidence was all the other way. Day by day persons whose sanity is unquestioned show themselves totally incapable of managing their own affairs, pecuniary or otherwise; and it appears not only hard, but unjust, to declare that because a man is more or less eccentric on some points, he is therefore to be debarred from the privilege of spending his money in his own way, more especially if he shows shrewd business habits and a keen general appreciation of the state of his banking account. To elaborate a "Holy of Holies," to parade in a "long white hat trimmed with gold fringe," to visit "Jesu" and "Melchisedek" in Egypt, are, after all, innocent and comparatively inexpensive indulgences, and not to be treated on the same footing as are the squanderings of a lunatic who, having his divining rod over a barren moor, forthwith proceeds to spend his all and mortgage his property in purchasing a supposititious gold mine which gives out nothing but a rubbishy marl. The jury, as we have above intimated, ultimately found that Major OWEN was of sound mind and capable of managing his own affairs.

THE debate which took place at the Medical Society of London on Dr. B. W. RICHARDSON'S paper on the absolute signs of death reopened discussion of a subject which never seems to weary either the medical or the public attention. There is something so appalling, even to the strongest mind and the bravest heart, in the idea of being buried alive, that so long as such a thing is possible there will be a continuous debate on the topic in all circles of the educated community. Dr. RICHARDSON'S essay differed from what has usually been said on the matter in the fact that it enumerated from a long experience the circumstances under which the practitioner may be called to determine whether or not life is extinct, as well as described the immediate tests that ought to be brought into play in order to prove that death is absolute. No less than ten distinct circumstances were assigned as being advanced by relatives of deceased persons on the question of suspended life, to which was added the expressed wish or direction of a person during his or her own life that a skilled examination should be carried out after assumed death, in order to prevent the possibility of interment while yet a spark of life should remain. With most of these circumstances calling for inquiry the profession is more or less familiar, but two were specified that are not generally recognised—namely, simulated death from narcotism caused by chloral, and the same simulation from what the author designated traumatic catalepsy, and the cataleptic insensibility from the shock of an electric discharge, or from lightning stroke, or from concussion. Two cases were cited illustrative of these conditions, both of which might be rendered in the text-books as new additions to the list of doubtful evidences of actual dissolution. Of the many tests or proofs of death enumerated by the author, there are also two that should be recorded not only as new, but as being exceedingly simple and at the same time strictly physiological in character. The first of these, which has originated with the reader of the paper, and which Sir WILLIAM MAC CORMAC, the President, commented on so favourably, is the wrist test, or that of putting a splint on the fore part of the wrist so as not to impede any current of blood which may be making its way through the radial and ulnar arteries, and then tying a fillet firmly round the wrist so as to compress the veins firmly on the back of the wrist. If the veins of the hand, under this test, show no sign of filling, the absence of any vital circulation may be declared certain; while, if they fill, the fact of a certain "low-pressure" circulation may be assumed to be present, and therewith an indication of mere suspended life. The second test, new probably to most readers, is that to which the name of MONTIVERDI was attached as its discoverer, and which is called the ammonia hypodermic test. In using this test the operator injects one hypodermic syringeful of strong solution of ammonia under the skin of the arm or some other convenient portion of the body. If the body be not dead, if there be the faintest circulation, the ammonia will produce on the skin, over the point where it was injected, a bright-red patch, on the surface of which raised red spots will appear; but if there be absolute death, there will be produced a brown dark blotch, which is definitely conclusive against any possible vitality. One addendum to the indication of putrefaction as a proof of death is also worthy of note. Putrefaction may be delayed by two causes: by coldness of the surrounding air, and by the introduction into the body before death of an antiseptic substance like alcohol; or by a combination of these two causes. In such instances it is the proper practice to force on, so to speak, the putrefactive change by raising the temperature of the room in which the body lies to summer heat, and by adding moisture to the air. This proceeding plays a double function: it affords the body the best chance of restoration if by chance the life is not extinct; and it gives the strongest evidence of death in the quick putrefaction it excites if death has veritably occurred. We noticed in the discussion which followed the paper that Dr. ALTHAUS—whose account of the numbers of persons believed to be buried alive created a very serious impression—gave valuable testimony on the electrical tests of death, a point to which he thought the author had not paid sufficient attention. We noticed also that a question raised by Dr. ROUTH, whether the nearest relative of a dead person or the executor had the legal control over the remains, was not satisfactorily settled. But this anomaly all were agreed upon—namely, that the dead person himself was left out of the disposition, not simply because he was dead and helpless, but because the law would give no effect to anything he might have desired before death as to what should become of his remains.

IT has long been known that Birmingham and America have common sympathies, and a recent event will doubtless tend to increase the admiration which the one feels for the other. We can therefore understand the desire of the Birmingham guardians to do everything on an American scale, and to be able to boast of having an infirmary which, as their clerk announces, is "one of the largest in the world." The new workhouse infirmary for the parish of Birmingham is now completed, and will be opened, of course with much rejoicing, on Jan. 9th and 10th, "when the

guardians hope to be favoured with the presence of a large number of those who are in sympathy with their work." If the word sympathy is to be used as an alternative for approval, it is to be hoped that the visitors will consider that size and excellence are not synonymous. The appliances, fittings, machinery, and the planning of the building may be good, but it is possible to have too much of a good thing. This, indeed, is the complaint, and the very serious complaint, we have to make against the new Workhouse Infirmary for Birmingham. This infirmary is actually to contain as many as 1700 beds; lock cases and bedridden cases not or but seldom requiring medicine, will not be treated in the infirmary, but will be retained in the workhouse. The 1700 beds will therefore be occupied by sick persons requiring active medical supervision and treatment.

For this number of persons there is to be a medical staff consisting of a visiting physician and a visiting surgeon, and two resident assistant medical officers. Each of the visiting staff, aided by his assistant medical officer, will have under his care 850 patients; that is to say, if they began work at 8 o'clock in the morning and left off at 10 o'clock at night, and devoted the lengthened period of one minute to each patient, they would not, even if there were no interval for food or rest, succeed in looking at in this way every patient every day. For the proper medical examination of a patient, for a surgical operation or dressing of a single case, no time would, of course, be permitted. We are reminded of an absurd out-patient room story of patients being divided into two broad classes, those who suffered from diarrhœa and those who had coughs; and to these were given tickets, the colour of which indicated which of two medicines they were to have. We could almost imagine that the medical treatment of the Birmingham sick poor is to be conducted on some similar principle, and justification will doubtless be found for proceedings at Birmingham which would meet with severe disapproval elsewhere.

Indeed, we are compelled to believe that Birmingham is a very exceptional city, and the requirements of its poor inhabitants are not the same as for those of the rest of the kingdom, otherwise we should be unable to comprehend how the Local Government Board have given sanction to the construction of an institution which is in direct defiance of one of their most important rules. Among "the points to be attended to in the construction of workhouse buildings," states a memorandum issued by the Local Government Board, are the following: "No single infirmary should, as a rule, be arranged for more than from 500 to 600 patients"; yet Birmingham is permitted to place under one management an infirmary for 1700 people. The vast size of this institution might be held to warrant a claim for special medical control, but there is to be no one with the position of medical superintendent; the visiting physician and surgeon and the two assistant medical officers will, we presume, have no administrative functions; they will, we imagine, merely prescribe and operate, the whole charge of the management devolving upon the master and matron. We have no hesitation in saying that it is impossible the sick can be properly cared for under these circumstances. The varying wants of sick people needing personal attention requires a detailed supervision, of which there can be none in the Birmingham Infirmary. It would be interesting to know how an institution which fails in these important medical respects has been approved. Only last week we commented on the apparent abandonment by the Local Government Board of the medical inspection of Poor-law institutions, and we referred to the preventable disease with which some were now visited; it would appear as if both the local and central boards had proceeded in reference to the new infirmary without any medical guidance, and this can be the only explanation of the erection of a building which is thought to be worthy of admiration because it is one of the largest in the world!

Annotations.

"Ne quid nimis."

OPERATIVE SURGERY AT FINAL EXAMINATIONS.

THE Committee appointed by the Council of the Royal College of Surgeons to consider whether an examination in operative surgery should be instituted as a part of the test for the Membership of the College have reported against its desirability at present, and this report has been approved and adopted by a majority of the Council. Their opinion, and we think the opinion of the majority of the teachers in London, is that, however desirable such an examination may be, it cannot be carried out with advantage under the existing circumstances at examinations where a very large number of candidates present themselves. At the examinations held by the Conjoint Board in England every three months, 200 or more students are tested in surgery, and if operations of emergency only are performed by every candidate on the dead subject, at least twelve bodies must be forthcoming at each examination. If a thoroughly fair and appreciably searching test be demanded in operative surgery, twice this number must be provided. We are quite sure that, unless minor operations be mainly confined to amputations of fingers and toes, a much larger number than twenty-four annually, as suggested by Sir William Stokes in his letter to us last week, would be required by the Conjoint Board in England, and he omits altogether the increased supply required by teachers of operative surgery in giving a thorough course to their individual students which this change would involve. We do not see how the supply for the London schools can be materially increased, for it is well known that every effort has been made by the Anatomical Committee to secure unclaimed subjects in London and the neighbourhood; and some of the provincial schools, even now, have many difficulties to contend against in order to obtain a due number of parts for every student to adequately dissect for himself the entire subject. These are English difficulties, and we think that the Conjoint Board in Scotland and the University of Edinburgh, with their large number of candidates, will find as great difficulty in carrying out the recommendation of the General Medical Council as the English Examining Board. It is clear, from his depreciatory remarks on the operative surgery at the Cambridge examination in December, 1887, that the requirements of the Inspector of Surgery are not limited to minor or emergency operations. "The majority of the candidates were occupied, so far as amputations were concerned, with the removal of parts of the fingers and toes; and until no more of these remained no other amputation was named.....Of some twenty amputations of fingers and toes, very few could be called good; indeed,

after a few had been done, the incisions so encroached on each other that it became difficult to distinguish between the effects of the several operations." The material required for full examination is further shown by his report. At the Conjoint Board in Ireland in April 1888, two subjects were used for eighteen candidates; and in July at Glasgow, with three subjects, twenty-seven candidates were examined. It seems to us, on reading these detailed reports, that, whilst more attention is given in Ireland to ophthalmic surgery and the performance of operations on the cadaver, greater attention is given in England and Scotland to the more systematic parts of the examination in surgery, and in many cases, notably at the English College of Surgeons, to the diagnosis of cases, and to surgical anatomy and pathology. In Ireland individual sections of a surgical examination may be passed at different examinations, and this seems to us a questionable arrangement, and makes the ordeal easier than it appears at first sight to be. There can be no doubt as to the necessity of equalising as far as possible the minimum pass examinations of the Conjoint Boards, and as this cannot be done without alterations in England and Scotland as well as in Ireland, we may expect a slight levelling up in all three divisions of the kingdom, and, in the process of levelling up, operations on the dead subject and ophthalmological and aural examination of patients must take a due share. Such tests will be demanded by public opinion now that attention has been called to them, and attempts will have to be made by the examining authorities to overcome the difficulties which at present beset their path.

THE SANITARY CONDITION OF WESTMINSTER.

IF the Mansion House Council on the Dwellings of the People were desirous of evidence as to their usefulness, they might refer to the account given by an evening contemporary of a meeting of the Westminster vestry which was held last week. The medical officer of health reported at that meeting the results of an inspection he had made in consequence of the representations of the Mansion House Council concerning the deplorable condition of many houses in the district. He stated that the report of the Council, with one or two trifliog exceptions, was mainly true. The premises in one street were filthily dirty and in a disgraceful condition; in others the yards were badly paved, and other sanitary defects existed. He concurred with the view expressed by the Council as to another set of houses that they should be dealt with under Torrens' Act, as they were not fit for human habitation and needed demolition. The medical officer of health further said that his inspection brought to light grave want of attention. He complained that he could not get any report from the sanitary inspectors, who were therefore "utterly useless." The report has been referred to the Sanitary Committee of the Westminster vestry, whose action will, no doubt, be carefully watched by the Mansion House Council; and it may be hoped that this knowledge will stimulate the vestry to inquire into the circumstances of this neglect, and provide the remedies for conditions which seriously reflect on their administration. It is certainly a curious feature of local government in London that until a few earnest people undertook to bring to light the neglect of its sanitary administration, and to demand the interference of sanitary authorities, in many districts the enforcement of the law was practically unknown. If the Westminster vestry proceed to put their house in order without delay, we presume the Mansion House Council will gladly assist them in the improvement of their district, but the Council is so warmly supported in its efforts by Lord Salisbury's Government that the mere pretence to administer the law will not be held to be sufficient. The question, however, remains whether the Government itself has not a responsibility in this matter, whether in leaving to a few philanthropic individuals the inquiry as to the home conditions of the people ministers are doing all that could be expected of those who are in power. Local government has not proved a complete success, and even the operations of County Councils may not be unattended by failure. If we may judge of the London Council by the prospects of the moment, there is not much evidence that its constitution will differ very widely from that of the Metropolitan Board of Works, and if this be found to be the case we may be thankful that the Government has not entrusted it with wider powers. It does not yet appear that London will be able to remain without the watchfulness of a body like the Mansion House Council or the intervention of a department of the State.

PROFESSOR VON PETTENKOFER'S JUBILEE.

THE Father of Scientific Hygiene, as his compatriots delight to consider and to call him celebrated, on the 3rd inst. his seventieth birthday, amid demonstrations honourable to their promoters no less than to their object. First to salute the hero of the day were the civic dignitaries of Munich, who, in the name of the citizenhood of all classes, crowned their congratulatory address by consigning to him on an artistically designed and richly illuminated parchment a copy of the deed whereby they founded a scholarship of ten thousand marks for the study of the science indissolubly associated with his life and work. Then came an eloquent missive from the National Liberal party of the Bavarian capital, wishing him continued years and energy to further the cause of which in darker days he had been the enlightened and intrepid champion. And this in turn was succeeded by congratulatory messages from every quarter and through every channel, telegraphic, postal, and personal, from his Royal Highness the Prince Regent to the humblest scientific association in the Fatherland. As illustrating the many and various interests on which von Pettenkofer has left his impress may be cited the "Glückwunsch" (felicitation) he received from the central branch of the German Society for Promoting Rational Painting, of which body he had been made honorary member on account of his services "in the conservation of oil pictures and in the technique of the pictorial art." All throughout the day deputations, more or less formal, were arriving at his house, most of them from Munich herself, and representing the professoriate of the University, the State Medical Department, and the Medico-Chirurgical Society, to say nothing of delegations of old pupils from Mainz, from Amsterdam, from Würzburg, from Göttingen, from Prague, and from Berlin, to present him with a finely-executed marble bust of himself. Telegrams and letters innumerable bore testimony to the honour in which he is held all the world over, representatives of the Royal Family abroad being among the most cordial of their transmitters. At the banquet at which he was entertained in the evening—regarded as the most impressive ever given by Munich to a distinguished citizen—despatches by telegraph were announced from the Prussian Minister of Education, von Gossler; from the Universities of Kasan, Stockholm, Christiania, Bucharest, Breslau, Strasburg, Brunswick, and Erlangen; from the assembly of Swiss physicians; from the Imperial Sanitary Office of Germany; and from Professor Böhm, Director of the General Hospital for the Sick in Vienna. On the evening of the 5th the students of Munich organised a torchlight procession in his honour, which nothing but the denseness of the fog prevented from proving a brilliant success. As it was, the long files of torch-bearers, 700 strong, as they patrolled the principal streets to the music of several effective bands, were exceedingly impressive; and when they

drew up under the windows of von Pettenkofer's residence their triple "Hoch" called out the hero of the occasion himself. "Gentlemen," he said, "my dear academic brethren, you are celebrating my seventieth birthday. It is a beautiful and beneficent impulse that makes youth honour old age. May you in turn reach the happy goal I have attained to. I give you my fatherly blessing in the various careers on which you are entering. I wish you success in them from the bottom of my heart. On this solemn occasion I will not keep back from you what has led me in safety on my path: work and alacrity, enthusiasm for ideal aims—such were my lode-stars. Do you also keep your eye, in this materialistic age of ours, on those heavenly guides, which will lead you by unerring paths. I, too, once belonged as a student to the 'Alma Mater Ludovico-Maximiliana,' and I belong to her as a teacher to this day. I give you therefore from the fulness of my heart: 'Die Münchener Studentenschaft lebe hoch, hoch, hoch!'" The enthusiasm which these noble yet simple words evoked was indescribable. and the procession, with military precision, wheeled round, and performed the home journey in the reverse order to that in which it had advanced. Again it traversed the main streets till it arrived at the Karlsplatz, where with a "Hoch" for academic freedom, followed by the strains of "Gaudeamus igitur," it flung the remnant of the torches into a mighty bonfire, and then dispersed.

TRINIDAD LEPER ASYLUM.

THE report of Dr. Beaven Rake, the medical superintendent of the Trinidad Leper Asylum, for 1887, seems worthy of a more extended notice than it received in our impression of the 8th inst. Under the head of "Administration" he states that during the year there had been cases of disorderly conduct among the inmates, necessitating the discharge of some of the worst offenders. As far as possible expulsion is avoided, as the patients so dismissed often remain in Cocorite village and incite their late companions to breach of rules. It appears that the asylum grounds are not enclosed, but steps are being taken to effect this. The statistics for the year show that there have been more applications for admission than vacancies on the male side, and the female ward has often been full. Eleven cases of acute leprosy — i.e., fever accompanied with tubercle — were noted. Systematic examination of viscera and tissues has been made for the leprosy-bacillus, which has been found in 32 internal viscera and in 41 other parts. The most frequent situation appears to be the femoral glands; next in order, the larynx, liver, and spleen. So far as observation has gone, the bacillus is found to be fairly equally distributed in various stages of the disease. In anæsthetic cases the bacillus was found in the viscera in only 3 out of 32 occurrences, whereas it was found in the median nerve in 5 out of 8 occurrences. On the question of contagion, Dr. Rake says it must first be proved that the bacillus is the cause of leprosy, and that it can be communicated; but what are the conditions determining its transference are not known, since the presence or growth of the bacillus outside the body has not yet been satisfactorily demonstrated. It would seem rather that there must be direct transmission from one individual to another, and that certain subsidiary factors (such as bad food, want of ventilation, and filth) and wasting diseases (such as phthisis and syphilis) may co-operate. Dr. Rake then records the results of his examination of the blood of lepers, in which he confirms the conclusion of Danielssen and Boeck as to the high percentage of fibrin. In 16 tuberculated cases the mean percentage was 0·78, in 21 anæsthetic 0·79, and in 13 mixed 0·72. In only 2 cases (out of 50) was the percentage below 0·2, the average quantity in healthy human blood. In the treatment of the cases nerve-stretching was carried on largely. The sciatic was stretched 26 times, the external popliteal 11, the median 40, the ulnar at elbow 18, the ulnar above wrist 4 times, and the supra-orbital once. The operation was undertaken in cases of ulceration, pain, anæsthesia, tuberculation, and necrosis. More or less relief was given in about one-half of the cases, and Dr. Rake sums up his experience under the following two heads:—1. The great sciatic is the most satisfactory nerve to stretch, for it is nearest the spinal ganglia, and commands the supply of the whole leg and foot and the back of the thigh. 2. The chief indications for the operation are perforating ulcer, some cases of necrosis, and pain, whether associated with perforating ulcer or with peripheral neuritis. As to new remedies, ichthyol has been found useful in eczematous conditions, but not more so than vaseline. Resorcin has been applied to tubercles in a 20 per cent. glycerine solution without marked effect. Cocaine in an 8 per cent. solution was very useful in cases of ophthalmia or corneal ulceration. Ammonium picrate was valuable in the relief of malarial headache, but produced no marked effect in intermittent fever. Reference is also made to two interesting cases of ankylostomiasis, and the value of santonin in relief of symptoms due to the parasite in this disease, to the value of turpentine in dysentery, and to a case of chronic hernia associated with ulceration of the large intestine. The appendix to the report contains many valuable statistical tables.

PROFESSOR LEBER ON INFLAMMATION.

PROFESSOR TH. LEBER, of Göttingen, has lately been engaged in some investigations having for their aim the solution of the question whether suppurative inflammation is exclusively produced by micro-organisms, or whether it may also be set up by purely chemical substances. By means of injections of completely sterilised cultures of staphylococcus pyogenes aureus into the anterior chamber of the eyes of rabbits, he was able to induce intense suppurative inflammation. This, however, differed from similar inflammation produced by living staphylococci, inasmuch as it showed no disposition to spread; and even when the local appearances were of a very severe nature, the morbid process rapidly came to an end. From staphylococcus cultures different chemical crystallised substances were obtained, which were shown by their reactions not to be identical with the ptomaine obtained by Brieger from staphylococcus cultures, and which he, in consequence of its property of setting up suppurative keratitis, denominated "phlogosin." Besides, Professor Leber was able by means of his investigations to show that when suppuration was set up the pus corpuscles make their way in a centripetal manner towards the spot where the inflammatory stimulus exists. He found that capillary tubes containing a small quantity of a substance capable of inducing inflammation when introduced into the anterior chamber of the eye became filled after a time with pus, while no pus at all could be detected in the eye itself. Professor Leber considers this attraction of leucocytes by chemical substances as analogous to the attractive influence of certain chemical substances in vegetable cells which has already been observed, and which has received the name of "chemo-tactical action." Finally, Professor Leber finds that in suppurative inflammation fibrin and the tissues become dissolved by means of leucocytes; for example, pieces of cornea impregnated with sterilised staphylococcus culture, when introduced into the anterior chamber of the eye, became rapidly dissolved. It was found, moreover, that pus, when free from bacteria, enjoys the property of causing a local liquefaction of nutritive gelatine. Professor Leber recognises in these properties of leucocytes (their ability to absorb foreign bodies and to dissolve fibrin and tissues) a valuable defensive arrangement which tends to shield the organism

against external injuries. He would therefore look upon inflammation as an "important process, which consists in rendering the organism obnoxious to external injurious influences."

ISOLATION AND SCHOOL CLOSURE FOR MEASLES.

THE epidemic of measles is becoming a source of anxiety in several of the districts where it is prevalent. In Liverpool it has raised a question which has long been slumbering as to the use by the corporation of the Poor-law hospitals for municipal purposes. The Town Council now possess two excellent hospitals for infectious diseases, in addition to their small-pox hospital, but the accommodation at their disposal is so obviously insufficient that they are desirous of using Poor-law hospitals for measles. The ground on which the workhouse committee of the select vestry have once again sanctioned this as a provisional arrangement is the expense to which the city would be put if the corporation made the provision which is demanded for such a population as Liverpool. There is, unfortunately, another aspect of the question, and that is the pauperising effect of admission to the workhouse hospital, and such an effect should not be permitted where the isolation carried out is done in the interests of public health. At Cardiff the difficulty seems to lie in the limited power as to school closure. The power of the sanitary authority is confined to those elementary schools which come within the provisions of the Education Code, and although many sensible schoolmasters and mistresses are found to close their schools voluntarily with a view to the protection of their scholars, there remain a number who decline to be guided by the sanitary authority, and it may need an amendment of the law to bring these within the scope of the needed sanitary provisions. If the law is altered, Sunday schools should also be dealt with, for instances are well known in which the mischief is maintained by bringing children together on Sunday who are for reasons of public health not allowed to meet on week-days. We trust the school owners at Cardiff will not oppose the sanitary authority in this matter, for although measles is not an easy disease to control, yet school closure thoroughly carried out has succeeded in staying its spread.

THE LESSONS OF A COLLISION.

THE report on the Bewdley railway collision last November explains the cause of that accident to have been an act of apparently deliberate carelessness, which to any sober-minded person seems hardly credible. The engine-driver of a passenger train, after stopping in obedience to signals against him, again moved forward directly in the course of an advancing train of goods waggons. On receiving a second warning from the signalman advancing on foot, he began to retire, but could not do so in time to avoid a crash between the two engines. A desire to save time appears to have had something to do with this unfortunate forward movement, which it was said was made in the hope that the signalman would allow precedence to the passenger train. In ordinary circumstances behaviour of this kind is clearly inexcusable. In the present instance it is in some degree palliated, as far as the engine-driver is concerned, by the fact that he had been on duty for fourteen hours before the accident, and was therefore by no means fresh for work. Most persons, in assigning the responsibility for this occurrence, will probably divide the blame between the railway company and its injudicious or impatient servant. What is now of chief importance, however, is the possibility of avoiding similar mistakes in future. The engine-driver's expectation that the signalman would, in disobedience to his own signals, allow one train to cross the path of another, affords some ground for uneasy reflection. Railway companies would relieve a natural tension in the public mind by inquiring into this aspect of the case. On the other hand, they can hardly themselves escape a merited censure for this fresh exposure of their old offence,—that of overworking their *employés* at the prompting of a false and dangerous economy.

RICKETS AND SANITATION.

OUR contemporary the *Glasgow Herald* has lately opened its columns to the subject of rickets from the point of view of sanitation. The question was raised in an able letter from Mr. James Thomson, who pointed out that rickets was of great prevalence in Glasgow, and who drew attention to what he considered the cause of the disease. He rejected, and wisely, the old notion that the soft waters of Loch Katrine were responsible for the deficiency in lime salts in the bones of the Glasgow infants, an idea which one would have imagined could hardly ever have been seriously put forward; and he went to the root of the matter by showing how the stress of the disease is chiefly on the poor, who suffer from it five times as much as the well-to-do, and that in all classes it is mainly attributable to dietetic mismanagement in early life, and the unwholesome surroundings in which so many children are brought up. The writer of the editorial, commenting upon Mr. Thomson's letter, owns, with much truth, that the dietary of the poor has considerably changed in modern times, particularly in the replacement of such wholesome articles as milk and butter and fresh meat, by tea and coffee, sugars, jams, tinned meats, and vegetables. It would almost seem as if the population of large towns has far outgrown the supplies of natural and necessary foods, which have become, therefore, more or less luxuries, and which have to be replaced by cheaper and less wholesome substitutes. But rickets is not a mere question of diet, great as is the influence of this upon the disease. It is influenced by the whole environment of the growing organism, and therefore we think that our contemporary is doing good service by making the prevalence of this disease the text of an appeal to the citizens of Glasgow for renewed efforts to improve the conditions under which so many thousands dwell.

EMIGRATION SERVICE TO SOUTH AMERICA.

DR. J. M. CABEZON contributes to *La Revista Argentina de Ciencias Medicas* an article on the accommodation provided for emigrants during the ocean voyage from Genoa to Buenos Ayres. The emigrant ships are usually large Transatlantic cargo steamers, which are fitted up temporarily for their human freight. "The ship-owners content themselves by running up a series of divisions in the hold according to the number of passengers, and in these wretched holes the unfortunate emigrants are packed like dry figs in a box. The bunks are, as a rule, not large enough for an adult to occupy." The Argentine Republic has tried to remedy this state of affairs, and its emigration laws might well be copied in some respects by European natives. It appears that the Italian laws on the subject are just as bad as they well could be, and consequently the only means the Argentine Government has of effecting changes for the better is to place an official surgeon in each of the ships. How much remains to be done may be inferred from the recommendations Dr. Cabezon thinks it necessary to make. "The ships," he says, "ought to be fitted in a permanent manner, and the number of emigrants should be in proportion to the registered tonnage. They should be provided with lavatories, baths, and closets, in accordance with modern hygienic principles. The bedding of the emigrants and their personal cleanliness should be inspected. They should be supplied with a proper amount of clean linen, and in the tropics they should

oe obliged to bathe themselves twice a week." If the reforms initiated by the Argentine Republic are carried out, Dr. Cabezon thinks that before long the present wretched system under which the unfortunate emigrants are huddled together in the ship's hold, badly lodged and badly fed, and placed almost in the same conditions as the slavers heretofore transported their cargoes of human flesh, will be swept away.

THE STRUCTURE OF DENTINE.

MR. F. J. BENNETT, M.R.C.S., L.D.S., read a paper recently at the Odontological Society on "Certain Points connected with the Structure of Dentine." Mr. Bennett employed a new, and what may in future prove a valuable, method of decalcification—namely, by glycerine. The idea was suggested by some papers by Dr. Ord, in which it was shown that glass, mother of pearl, ivory, and other substances became slowly etched by immersing them in a solution of subcarbonate of potash in glycerine. Mr. Bennett applied this solution to the dental tissues, and in the course of experimentation was surprised to find that precisely the same results could be obtained by using glycerine alone, and thenceforward confined himself to the use of this reagent. His method of procedure was as follows. 1. Freshly extracted teeth were ground and polished sufficiently thin to allow of microscopical examination; these were suspended in glycerine for periods of from one to six months, washed, and mounted in glycerine for examination. 2. Freshly ground teeth were immersed whole in pure glycerine for similar periods, then ground, polished, and mounted as before. 3. Whole teeth were placed in extremely dilute solutions of glycerine, the strength of which was daily increased until pure glycerine was used; the specimens were then kept in this for one or two months. It is interesting to note that cementum which is poorest in inorganic matter is most readily acted on by glycerine. Thus treated, dentine, especially that portion nearest the pulp and that newly formed, shows very distinctly the outlines of the dentinal tubules, and the matrix, which is generally stated to be absolutely structureless, is apparently made up of superimposed layers of membranes, with a number of stellate cells. The tubules perforate these layers, and can be seen in some sections to communicate with or arise from the cells. In the discussion which ensued, Dr. Ord, referring to the cells, said he could not express an opinion until the specimens had been examined by polarised light to see whether the cells were organic spheroids or inorganic matter, suggesting that the appearances might be due to a rearrangement of the earthy matter.

BARBAROUS AMUSEMENTS.

As Europeans we are apt to picture ourselves in the van of modern culture. Let us grant that, on the whole, this position is deserved, and there still remains occasion for discontent. If we look at some of our amusements, we must admit that they are little, if at all, more civilised than the cruel barbarities which marked the decline of ancient Rome. Take, as an instance, what happened lately in Vienna. A young woman is allowed to perform on a trapeze holding a child in her teeth, and falls to the ground, with the result that both are dreadfully injured. In such a case it is difficult to say whether the reckless performer or those who countenance her feat are the most culpable. However we view the matter, humanity is a loser. We are slowly learning in some things, happily for ourselves, that violence and brutality do not constitute the rule of manhood. Cock-fights, bull-baitings, and prize-rings are not now in fashion, yet we hear no impeachment either of our national courage or of the quality of our live stock. It is high time we were seeking a further stage of improvement in the matter of show performances. It is time for us to admit that strength, courage, and skill, in their most healthy development, are compatible with an absence of foolhardiness. In order that acrobats or boxers may justify their existence it is not needful that they should nearly kill themselves or others. A section of public opinion, indeed, still is tolerably indifferent to these excesses; but the tide is turning, and there are many others who will agree that money spent on shows of this kind is little better than a bribe to do mischief.

THE CENTRAL BOARD OF HEALTH, VICTORIA.

IN the last annual report of the Central Board of Health for Victoria attention is drawn to the success of the quarantine restrictions which were imposed on the occurrence of small-pox in Tasmania in the autumn of last year, and some of the criticisms to which the system has been subjected in neighbouring colonies and elsewhere are adverted to. Apart from quarantined passengers brought to the colony by sea, Victoria is stated to have had no case of small-pox since 1885; and it is urged that those who recommend the alternative English system of medical inspection should remember that small-pox is always existent in England; that medical inspection fails much more frequently than quarantine; and that this latter system will doubtless come into operation when the circumstances of the colony approach those of England, but not till then. In England we, of course, know nothing of medical inspection as applied to small-pox; we resort to it for the purposes of cholera—a disease which in its rarity corresponds fairly with small-pox in Victoria. And we should never suggest that any particular trust should be put in medical inspection for small-pox. It is to vaccination that we must look for this, and Victoria makes out some case for its action not only by its success in dealing with the late emergency, but by referring to the absence of any compulsory vaccination in New South Wales and to the neglect to enforce such a law in Tasmania. Incidentally it is mentioned that the Central Board issued during the year 2648 tubes of humanised lymph, and that, exclusive of calf lymph used for vaccination at the depôt, 14,601 points of calf lymph were sent out, the demand for such lymph largely exceeding that for humanised lymph.

FACTORY INSPECTION.

THE evidence which Mr. Lakeman gave last week before the Lords' Committee upon sweating is even more interesting for the side light which it casts upon the conditions under which factory inspection has to be conducted in London than for the facts as to the condition of the toilers themselves. Sanitation can no more be enforced than the observance of public order without an efficient police; and the report which Mr. Lakeman was able to give of his own work was not more creditable to himself than suggestive of a great deficiency in the *personnel* of the department over which he presides. With the help of one assistant he has to satisfy himself as to the sanitation, ventilation, hours of labour, and time of meals in 4000 factories, distributed over about one-third of the whole area of London. It needs no proof to show that, even if his assistant be as devoted as himself to the duties that he is called upon to discharge—and more than this it is hardly possible to say,—it is inconceivable that two pairs of hands can overtake such an enormous mass of work. Even the small assistance which might be afforded by sanitary authorities in the way of directing the inspector's attention to quarters where it might be usefully bestowed does not appear to be ordinarily forthcoming. "It is a curious thing," said he, in answer to a question put by Lord Dunraven, "that since your lordships have had

your sittings here I have had six notifications from sanitary authorities of workshops which should come under our supervision; *but previously we had none.*" The work of the inspector under such conditions is a thankless and almost a hopeless task. If it has not proved utterly abortive, the credit is due to an excellent public servant, and in no measure to the system which he has had to administer or the support which he has received from the central authorities. We are not disposed to undervalue the advantage of having our factory inspection or any other public work done by whole-souled officials, but we do say that there is here a proved case of defective machinery which stands in need of prompt and thorough repair.

ICTERUS NEONATORUM.

PROFESSOR NEUMANN of Königsberg (*Virch. Arch.*, cxiv., 3), in endeavouring to throw light upon the vexed question of the true nature of icterus neonatorum, whether it is hæmatogenous or hepatogenous, has availed himself of the fact that in fatal cases of jaundice free crystals and granules of bilirubin are to be found in the various tissues, especially in the fat cells of the omentum and elsewhere. Some years ago he detected such precipitates in the case of an infant who died from congenital heart disease four hours and a half after birth, without showing any sign of jaundice. He has during the past year examined the bodies of twelve stillborn children, and in no fewer than eight found this precipitation of bilirubin—not indeed to the wide extent prevalent in icterus neonatorum, but limited to the fat cells of omentum and subserous fat in various parts of the body. He rejects the idea that its occurrence is due to decomposition of blood pigment, such as occurs in the dead fœtus long retained in utero, since in no case examined was there any evidence of death having occurred long before delivery. He also excludes the possibility of post-mortem transudation of bile, since the tissues in which the bilirubin mostly occurred were remote from the gall bladder and intestine. Indeed, he is forced to believe that the bile is already present in the blood, and that after death it crystallises out in the fatty tissues. Hitherto, however, attempts to determine the presence of bile in the blood of the newborn have failed, but the experiments have been insufficient. The fact he has noted suggests that icterus neonatorum may be due to an exaggeration of certain processes natural to fœtal life, and not dependent upon the circulatory changes taking place at birth. On this view, it would be a true hæmatogenous icterus.

PULMONARY ACTINOMYCOSIS.

DR. MATSCHINSKI relates in *La Gazette Clinique Hebdomadaire de Botkin* a curious case of this disease which he diagnosed during life. The patient was a man suffering from typhoid fever and croupous pneumonia, whose expectoration Dr. Matschinski was examining microscopically, when he found it contained the stellate and filiform fungus of actinomycosis. The filaments of the fungus were of an extreme fineness, dichotomous or roseaceous, from which slender thread-like processes were given off like the branches of a tree, but which were interlaced at the periphery. Fuchsin coloured these filaments a dark red, the groundwork being coloured blue with methylene blue. The necropsy confirmed the diagnosis made. At the base of the right lung was a cavity as large as an orange, filled with pus, in which were found fungi of the same kind as appeared in the sputa. Dr. Matschinski suggests that Ehrlich's method would be more useful in making a differential diagnosis between actinomycosis and tuberculosis—two diseases which, he thinks, might easily be confounded.

ROYAL COLLEGE OF SURGEONS.

WE would remind those of our readers who are interested in the question of reform at the Royal College of Surgeons that at the Council meeting held last week notice of the following motion was given by Sir Spencer Wells:—"That the resolution of the Council of May 8th, 1884—that an annual meeting of the Fellows and Members be called, to which a report from the Council be presented—be rescinded; and that the annual meeting of the Fellows and Members be discontinued." This motion will come before the Council at their next meeting in January. Meanwhile it is well that such a retrograde proposal should not escape the notice of the profession.

ALBUMINURIA IN RELATION TO LIFE INSURANCE.

AT the recent annual meeting of the Association of American Physicians, held at Washington, the subject of renal disease was dealt with by several members from various points of view. One of the most practically interesting papers was read by Dr. James Tyson of Philadelphia, and referred to the significance of albuminuria in respect to life insurance. The writer pointed out that in certain cases candidates presenting this symptom might be accepted, although he would draw the line rigidly at those who, in their general health, in the fact that no casts accompany the albumen, in the small quantity of the latter, and the high specific gravity of the urine, present no evidence of structural kidney disease. When the specific gravity is above 1020, the assumption is that the albuminuria is functional; if it be 1010, it would be hazardous to accept such a case, however good his health may be, even in the absence of casts. Of course, evidence of cardiac hypertrophy with albuminuria would suffice to exclude the candidate; nor if a patient suffering from albuminuria were over forty years of age should he be accepted unless he has long been under observation. The subjects of true gout were also recommended as unfit, seeing their liability to renal disease.

HOW SMALL-POX SPREADS.

A MAIDSTONE journal gives an account of a girl suffering from small-pox, who was allowed to leave the house and journey from Maidstone to Yalding in an ordinary railway carriage. The railway officials, it is stated, knew nothing of her illness, and therefore no steps were taken to prevent other people from entering the compartment, or to disinfect it. We may hope the Maidstone authority will institute a prosecution, with a view to preventing similar occurrences in future; but the event is interesting, because it shows the ease with which persons may contract this disease if they remain susceptible to its influence. A local authority may enforce the compulsory notification of infectious disease and the removal of the infectious sick to hospital, but if vaccination and revaccination be omitted, the carelessness of one individual may imperil a whole community.

PYLORECTOMY.

A SUCCESSFUL case of excision of the pylorus is recorded by Drs. E. Goldenhorn and S. Kolatschewsky of Odessa (*Berl. klin. Woch.*, No. 51). The patient was a lad fifteen years of age, who was admitted under Dr. Goldenhorn for extreme dilatation of the stomach following an attack of pain and vomiting eight years previously. The diagnosis was simple stricture of the pylorus, an unsual event in so young a subject; and after due preparation Dr. Kolatschewsky performed the operation of excision. The patient made a good recovery, slightly prolonged by the formation

of an abscess at the seat of suture. The portion of the stomach removed included 2·5 centimetres of the lesser and 4·5 centimetres of the greater curvature; the mucous membrane was thickened and thrown into folds, which at the pylorus itself formed polypoid masses, completely blocking the orifice. This condition doubtless resulted from the cicatrisation of an ulcer seated at the pylorus, and not from any congenital defect.

GUY'S HOSPITAL.

WE understand that the governors at their last meeting decided to establish a complete dental school as a special department of the hospital. Should the scheme receive the recognition of the Royal College of Surgeons, the dental student will be able to obtain his whole professional education at Guy's Hospital, including the special and general lectures and practice required for the diploma of L.D.S.Eng.

STRUCTURE OF STRIPED MUSCLE.

AT the last meeting of the Paris Society of Biology, M. Babinski stated that in a paper by Professor Eichorst on alcoholic paralysis, appearances had been regarded as pathological which were undoubtedly normal—viz., fasciculi of muscle fibres below the average diameter, and enclosed in a lamellated sheath of connective tissue; and also medullated nerve fibres. M. Babinski said he had reported this discovery to the Society in 1886, and found subsequently that M. Roth had noted the same facts to the Society of Medicine of Moscow so long since as 1880. This corroborative evidence combated Eichorst's suggestion that the conditions were characteristic of alcoholic neuritis.

THE PATHOLOGICAL SOCIETY.

THE attention of members of the Pathological Society is particularly called to the fact that the Council have decided not to hold a meeting of the Society on Jan. 1st, the day advertised on the notice-cards, but that the annual meeting is fixed for Jan. 15th, and that after the election of officers the adjourned debate on the pathology of chronic alcoholism will be proceeded with.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin and other Prussian Universities.—During the *annus medicus* 1887–88, 243 doctors and candidates in medicine presented themselves for the State Examination for a licence to practise. Of these 175 passed, 93 obtaining the mark "sufficient," and 82 that of "good." No one succeeded in obtaining "very good." In Bonn, which passed 62 out of 70, 5 obtained "very good." Breslau passed 48 out of 59, with 1 "very good." Göttingen passed 29 out of 33, with no "very good." Greifswald passed 66 out of 81, with 2 "very good." Halle passed 68 out of 103, with 2 "very good." Kiel passed 44 out of 52, with 4 "very good," all the rest except 6 obtaining "good." Königsberg passed 35 out of 42, with 3 "very good," and Marburg passed 35 out of 44, with 2 "very good." In looking through the figures it would seem that Bonn and Kiel have the most reason to be proud of their success. The total number of candidates was 727. Of these 526 passed, 234 obtaining "sufficient," 309 "good," and 19 "very good."

Madrid.—The competition for the Professorship of Clinical Surgery, vacant by the death of Dr. Encinas, has terminated in favour of Dr. Don José Ribera, principal medical officer of the Hospital del Niño Jesus.

Odessa.—Professor Mechnikoff has resigned the charge of the Bacteriological Station.

Valladolid, Santiago, and Cadiz.—The chairs of Histology, normal and pathological, in these universities, have been obtained, after competition, by Señores Don Leopoldo Lopez Garcia, Don Juan Bartual, and Don Luciano Clemente Guerra respectively.

Vienna.—It has been decided by the Professorial Senate that Balneology shall be recognised as a special "disciplin" or subject of instruction, a report favourable to its admission into the category of recognised subjects having been presented by Dr. Seegen, who was deputed to inquire into the matter. Dr. Clar, *privat-docent* in Balneology in Graz, has been admitted to a similar position in Vienna.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Carl Zeiss of Jena, the maker of the well-known Zeiss microscopes, at the age of seventy-three; Dr. Hollander of Riga; Dr. Nadejdin, prosector in the University of Moscow; Dr. F. A. von Haken, a well-known surgeon of Dorpat; Dr. von Schmid, Director of the Odessa Ophthalmic Hospital.

PROFESSOR ZEHENDER of Rostock has presented to the library of the Ophthalmological Society a very handsome volume ("Die Neuen Universitäts-Augenheil-Anstalten in Deutschland," von Wilhelm von Zehender; Engelmann, Leipzig, 1888), containing carefully drawn plans and a full description of the Eye Hospitals in connexion with German universities that have been opened since 1876. These are eight in number, and situated in Freiburg, Breslau, Königsberg, Heidelberg, Leipzig, Halle, Marburg, and Greifswald. The book will prove of the greatest service to all who are interested in the construction and management of ophthalmic hospitals. The internal arrangement of all the institutions described appear to be excellent; we doubt, however, whether the out-patient departments in some would be found sufficient for the large number of patients that flock to the eye hospitals in the large towns in this country. No pains appear to have been spared in collecting all details, and the letterpress and illustrations are of a high order.

THE tribute of valuable lives paid to the insalubrity of the Panama isthmus (says *Engineering*) has been very heavy. M. A. Nicholas, who had the organisation of the sanitary measures for the protection of the workmen, states that amongst the European element there have been 5200 deaths during a period of two years and three months, the burials averaging about seven per day, and the death-rate being 98 per 1000. In one station, amongst 159 young men specially selected for their physical vigour, 23 have died within twenty-two months. Amongst the coloured workmen the loss has not been anything like so heavy, only 51 having died out of 2100 during the period considered.

THERE was a dinner of the Glasgow University Club on the 17th ult., at the Holborn Restaurant. Lord Watson presided. After dinner short speeches were made in connexion with toasts by Lord Watson, the Lord Advocate, Mr. Justice Stirling, Sir Wm. Thomson, F.R.S., Mr. Craik, C.B., Mr. J. A. Campbell, M.P., the Rev. H. C. Wilson, and Mr. Maclymont. Some of the members of the Club contributed songs and recitations to the evening's entertainment. Dr. Heron and Mr. MacIlraith are the honorary secretaries of the Club.

SMALL-POX is still prevalent in Eastern Sicily. From the 13th to the 16th inst. there were ninety cases in the province of Messina alone, thirty of which occurred in Barcellona.

THE death is announced of Professor Roser, the eminent surgeon, at the age of seventy-one, from the effects of an apoplectic seizure. The deceased had been for many years one of the leading members of the medical faculty at Marburg University, and was the author of several important works, among which may be mentioned "Handbuch der anatomischen Chirurgie" and "Eléments de Pathologie chirurgicale spéciale et de Médecine opératoire," translated by Culmann and Sengel.

A PORTRAIT of Professor Williamson, late Professor of Chemistry in University College, London, was presented on the 12th inst. to the College on behalf of the subscribers. Mr. John Erichsen was in the chair, and a large number of the professors and students occupied the Lecture Hall, in which the presentation took place. Sir Henry Roscoe, as an old pupil and attached friend of Dr. Williamson, presented the portrait, which is by the Hon. John Collier.

THE Manx Legislative Council has passed a Bill enacting, amongst other things, that the future issue of grocers' licences shall be stopped.

Pharmacology and Therapeutics.

SOUTHALL'S "STANDARD" TINCTURES.

IT has long been evident that the activity of various vegetable drugs varies largely with the conditions under which the plant has been cultivated; hence tinctures prepared according to Pharmacopœial directions by percolating a definite weight of the crude drug must necessarily differ considerably in strength. A pint of a tincture prepared in the orthodox method represents the soluble material obtainable from the drug, but as the amount of alkaloid or other active ingredient is liable to considerable variation, so the tinctures obtained are by no means of constant strength or efficacy. The resulting uncertainty cannot always be met by the employment of the pure alkaloids &c., since in some cases—e.g., morphine or quinine—the crude drug possesses desirable qualities which are absent or reduced in using the chief active ingredient. These difficulties have been largely met by the process of "standardising" employed by Messrs. Southall Brothers and Barclay, of Birmingham, every tincture being adjusted to the same strength *after preparation* by the use of a larger proportion of drug or menstruum according to the ascertained requirements. The "standard" tinctures are supplied in two forms, the one closely corresponding with the supposed or intended strength of the Pharmacopœial tinctures, the other concentrated so as to require dilution in the proportion of one part of the concentrated tincture to three of menstruum. At present between fifty and sixty official tinctures are supplied standardised, the label in every case indicating the percentage composition. We understand that non-official tinctures will be introduced as occasion requires.

"THE LEICESTER" PATENT OINTMENT AND LOTION COVERS.

These consist of a sheet of linen, one side of which is covered with waterproof material, whilst round the margin of the other or inner side is a self-adhesive border at or near the edge. They are adapted for the application of ointments, blisters, or plasters to the skin. The adhesive material does not run in any temperature, and will prevent the application from spreading beyond it. These sheets are made of all shapes and sizes, and sold in boxes. A similar arrangement, with a pad of absorbent cotton-wool in the centre, is devised for application as a dressing to wounds, ulcers, &c., and for shielding diseased surfaces from friction. They are prepared by Mr. A. de St. Dalmas, Leicester.

NAPHTHALIN IN INTESTINAL CATARRH.

Dr. Holsti (whose work is mentioned in the *Nordiskt Mediciniskt Archiv*) has tried naphthalin for intestinal catarrh with foul-smelling secretions. The dose for adults was 0·5 gramme four or five times a day, but it should not be given for a longer time than from ten to fourteen days. For children of from one to two years old he gave 0·12 to 0·18 gramme four times a day. In all cases, both in adults and children, there was an improvement at the commencement. Sometimes there was a relapse, notwithstanding the renewed use of the naphthalin. Dr. Holsti specially recommends it in severe chronic enteritis where other drugs have been employed without effect. He found no injurious effects from its use in adults; in one case—that of a child of a year and a half old—the use of naphthalin in doses of 0·12 gramme four times a day was followed by great anæmia, although the intestinal catarrh was much benefited. Hence Dr. Holsti advises care in the administration of napthalin to children, especially when given for a lengthened period. He found it fail in two cases.

ERYTHRIN, A NEW ALKALOID.

Dr. Fernando Altamirano has communicated to the Academy of Medicine of Mexico some researches he has made upon an alkaloid obtained from the Mexican plant Erythrina coralloides, or colorin, as it is there called. The toxic effects of the plant in question were brought before the notice of the Academy by Professor Dominguez and Dr. Altamirano as long ago as 1877, and since that time a thesis on the subject has been published by Señor Rio de la Loza, but until lately no attempts seem to have been made to isolate any alkaloid or alkaloids which the plant may contain. According to Dr. Altamirano, the principle with which he has been experimenting, and which he calls erythrin, is a white, spongy, greasy solid, crystallising in various forms, melting at a low temperature, a dark-yellow liquid with a disagreeable and characteristic odour being formed. It is soluble in water, ether, and in benzol, still more so in chloroform, and very freely in alcohol. From the solution in this last only can it be crystallised; from its alcoholic solution it is precipitated by alkalies, especially by ammonia, as an amorphous substance, resembling resin. Concentrated nitric acid dissolves it, colouring it slightly yellow. It is precipitated by bichloride of mercury, by the double iodide of bismuth and potassium, by bichloride of platinum, and by bichromate of potash. It contains nitrogen. Regarding the properties of erythrin, it may be stated that, generally speaking, they present considerable resemblance to those of curare. It acts on the motor nerves, the vitality of which it arrests. It leaves, however, the brain and medulla, the sympathetic, and both classes of muscles unaffected. The action of the heart is not interfered with, or the peristaltic movements of the intestines. Sensation also is unaffected. When administered hypodermically, it rapidly proves fatal, even in very small doses. It is much less active when administered by the stomach, and when injected into the rectum it appears to have little or no effect. Dr. Altamirano has been able to show that erythrin has great power in counteracting strychnine poisoning. The only attempt which seems to have been made to observe the therapeutic effects of erythrin on the human subject was a case of very severe epilepsy, and was by no means successful, the patient succumbing to the disease. It was, however, proved to Dr. Altamirano's satisfaction that doses of 0·6 gramme can be borne without danger by the human subject.

HEDWIGIA BALSAMIFERA.

An alkaloid and a resin have been extracted from this tree; the former has convulsant, the latter paralysant and antithermic, properties.—*Pharm. Journal.*

LABOURERS' DWELLINGS AND THE LIVERPOOL CORPORATION.—The Insanitary Property and Artisans' Dwellings Committee of the Corporation have resolved to recommend that the Corporation place £7000 at their disposal for the erection of labourers' dwellings, and £14,000 for the purchase of insanitary property, under the authority of the city's Sanitary Amendment Act.

CARDIFF INFIRMARY.—Mr. Charles Thompson, chairman of the infirmary committee, has generously offered £500 towards the cost of erecting a new wing to the hospital building.

MR. HENRY FITZGIBBON ON SYPHILIS.

As President of the Royal College of Surgeons in Ireland, Mr. Henry Fitzgibbon was called upon to preside in the Surgical Section of the Royal Academy of Medicine, and to deliver the address at the opening meeting of the present session. He selected the subject of syphilis, observing truly that it must be of interest to every member of our profession, whether he practises in medicine or surgery. Moreover, his experience as one of the surgeons to the Westmoreland Lock Hospital has given him an exceptionally wide field for observing this disease in all its forms. Mr. Fitzgibbon commenced by observing the remarkable fact that "although the origin of syphilis is lost for ever in the obscurity of time, it has been transmitted through countless generations and races of men unaltered in its main features, although somewhat mitigated in severity." Then follows a quotation from Lancereaux's work on "Syphilis in Ancient Times and in the Middle Ages," found in Chinese medieval writings so far back as 2637 B.C. This describes what one cannot fail to recognise as a hard chancre, followed by all the phenomena which mark the course of a neglected case of syphilis. After alluding to the writings of Celsus, Mr. Fitzgibbon passes on to the "terrible and widespread European epidemic of 1495, which forced both the medical faculty and the victims of this disease to throw aside the reserve by which its nature had been obscured." Then only was the venereal origin of syphilis frankly acknowledged. Passing on to more recent times, the confirmation of the accuracy of these ancient writers by the labours of Ambrose Paré, Astrue, Bell, Ricord, Carmichael, and other syphilographers was noticed, and Mr. Fitzgibbon asks, "What is the nature of this disease which has resisted all time and spread over the whole habitable globe, until it has become endemic in every country in the world?" He answers it himself thus: "First, that it is a specific disease produced by the presence of a morbid virus transmissible by contact; secondly, that there is a period of incubation during which the virus is latent, and gives no external manifestation of its presence in the system; thirdly, it is characterised by periods of eruption of varying severity, in the evolution of which there is a degree of order and regularity; fourthly, one attack of the disease generally confers immunity against a second." The constitutional disturbance and abnormally high temperature preceding and accompanying the first eruption is next noticed, and Mr. Fitzgibbon's opinion is that syphilis belongs to the major exanthemata, however it may subsequently change from its original type. He also points out a striking difference between them in the fact that the other zymotic diseases are eliminated by the spontaneous efforts of nature, while, as a rule, syphilis is only imperfectly thrown off during the first period of febrile disturbance and eruption.

In discussing the transmission and manner of invasion of syphilis, Mr. Fitzgibbon expresses his conviction of the duality of venereal poisons, and holds the poison of syphilis to be distinct from that which produces either chancroids or gonorrhœa; adding the observation that syphilis often coexists in the same individual with chancroids and gonorrhœa. This, in his opinion, explains the phenomena that different individuals may contract—one syphilis, another gonorrhœa, and a third chancroids from the same source of infection without upsetting the dual theory. Cases are next detailed of what may be called syphilitic gonorrhœa and also of *bubon d'emblée*, and two cases where syphilis was acquired in an extraordinary manner. The first of these was that of a banker who contracted a Hunterian chancre on his lower lip by fingering bank-notes which had been recovered from a prostitute who had stolen them from one of his clerks and secreted them in her vagina. The other and even more painful case was that of a young lady only fourteen years of age who infected an abrasion on the thigh with syphilitic virus from the seat of a closet at a railway station. In conclusion, Mr. Fitzgibbon expresses his approval of legislation to prevent syphilis, and of the repealed Contagious Diseases Acts, giving statistics confirmatory of their beneficent action. Arguing from the fact that the source of all syphilis is prostitution, he urges that "if it is cut off at the source the stream will cease to flow." In the interest of humanity, and of the fallen women themselves, some protective measures are, he contends, urgently demanded.

Mr. Fitzgibbon concludes a most able and interesting address by expressing a hope that the day will come "when the British Government will have the courage to take the responsibility of restricting the spread of a disease from the ravages of which countless innocent victims suffer."

VACCINATION IN SAMOA, AND ALLIED QUESTIONS.

THE islands of the Samoan archipelago have enjoyed complete immunity from small-pox for the last forty years. Persons suffering from the disease have been frequently landed, and infected clothing has been sent ashore to wash. But these dangers have been successfully resisted by the simple precaution of universal vaccination, which is carefully practised by the missionaries and their native helpers. Such statements having been made to us, we thought it well to obtain a verification of them by two gentlemen whose authority will not be disputed. It will be gathered that we did not confine our inquiries merely to the efficacy of vaccination, but to the charges sometimes brought against it by those who ought to know better of being a common medium for conveying other disease. The writers of the following letters are, respectively, Mr. George Turner, a greatly respected Baptist missionary for forty years in Samoa; and his son, Dr. George A. Turner of Glasgow, formerly medical missionary in Samoa, an eminent authority on the diseases of Samoa, and author of a paper on "Amputation of the Scrotum for Elephantiasis Arabum in 138 cases." It is refreshing, when theoretical pathologists and injudicious editors are suggesting disparagement of vaccination in civilised countries, to be supplied with such facts from Polynesia, and to find that practical British sense is still so beneficent among backward races.

"Alton-road, Birkenhead, July 19th, 1888.

"Vaccination was commenced in Samoa in 1843, and continued at intervals, as we got vaccine lymph, up to the time I left, about five years ago. I have no doubt it is carried on still by the missionaries now there. To that as a means I believe it is to be traced that small-pox never appeared in the group. Vessels have touched at the principal port there with the disease on board, and on one occasion we discovered, after a vessel from California left, that six or seven convalescent patients had been sent on shore for hours daily. It has been a fearful scourge, as you are aware, on some islands where the natives had not been vaccinated, in some instances laying in the grave a third of the population. The vaccine lymph we had principally from Sydney in tubes. If you address a note to my son, Dr. G. A. Turner, 1, Clifton-place, Glasgow, he will be able to speak more correctly, perhaps, on the other point mentioned in your note as to 'transmission of other diseases, &c.' He was medical missionary for twelve years at the port of Apia in Samoa. I never met with the 'phenomenon' (an anti-vaccinationist) you name in Samoa; pity that there should be such a thing anywhere at this time of the day.

"Very truly yours,

"GEORGE TURNER."

"Clifton-place, Glasgow, Oct. 8th, 1888.

"I can fully confirm all my father has said in his note. The Samoans have all been thoroughly vaccinated over and over again, and to that no doubt is due their having entirely escaped small-pox so far. As to the other question about the transmission of other disease (syphilis especially) through the vaccine, I am happy to be able to say that I have never known any disease to be transmitted through vaccination, and I am still more happy to be able to tell you that up till the time I left Samoa—Dec. 1879—syphilis was unknown there. During the whole twelve years that I was in practice there I only saw one case of syphilis—an English sailor who had contracted it in one of the Australian or New Zealand (I forget which) ports. Gonorrhœa was known, and I every now and then had a case of it among the natives. 'Ma'i afi' (fire disease) or 'ma'i papalagi' (foreigners' disease) was what they used to call it, and I believe it also had not been very long known among them

before I went there in 1868. Of this I am certain, syphilis could not have existed among the Samoans without my knowing it and seeing cases of it, and up till Dec. 1879 I had heard of no cases of it, nor have I heard of it since, though it *may* have been introduced since I left. Long may it remain unknown there! If there is any further point on which I can give you information I shall be very glad.

"Yours truly,
"GEO. W. TURNER."

HONG KONG.

THE report of the colonial surgeon of Hong Kong for 1887 shows the admissions into hospital of the white troops to have been 1173, the deaths 8·22, and the mean daily sick 47·28 per 1000 of the strength in a force of 1217 non-commissioned officers and men. Among the black troops, who were only 177 strong, the admissions were 1842, the deaths 22·60, and the mean daily sick 36·89 per 1000. The police force averaged 636 men, of whom 116 were Europeans, 201 Indians, and 319 Chinese. Among the Europeans the cases were 1198 and the deaths 34·5, among the Indians 1458 and 4·9, and among the Chinese 586 and 12·5 respectively per 1000 of strength. The small numbers from which these ratios are derived deprive them of much of their value, especially as regards the mortality. The Chinese appear to enjoy a marked exemption from sickness compared with the other portions of the force; while that of the Europeans corresponds closely with the ratio of the white troops. In an average of 584 prisoners in the Victoria gaol, the cases of sickness were 572 and the deaths 10·27 per 1000, results differing very slightly from those of the Chinese in the police. The statistics of the Tung Wa Hospital show a fearfully high rate of mortality; 1213 deaths having occurred in 2231 cases, or 544 per 1000. It is stated that 376 of these were brought to hospital in a moribund condition, but deducting these the deaths are still in the ratio of 168·5 per 1000. Mr. Ayres, the colonial surgeon, states that "the great majority admitted into this institution are incurables in a destitute condition." An epidemic of small-pox prevailed during the last two months of the year, when 310 cases were admitted into the Tung Wa Hospital, of which 221 died. The majority of the cases were childen under four years of age, and nearly all unvaccinated.

The mortality among the European and American residents in Hong Kong, in number 3040, was in the ratio of 35·5 per 1000, being higher than in any of the nine preceding years. As no information is given as to the ages of the population, it is impossible to draw any deductions regarding it. The medical superintendent of the Government Civil Hospital appears to have experienced great difficulty in carrying on the duties from the insufficiency of the nursing staff. A scheme for its reorganisation was drawn up by Mr. Atkinson, and is stated to be still under consideration. The difficulty appears to be the result of a combination of overwork and insufficient pay.

Mr. Crow, the Government analyst, reports that he examined 328 waters derived from wells and springs, and placed 233, or 71 per cent., of them in "the category of waters that were evidently much polluted," and he recommended "that when an abundant water supply was available the Government would do well to order the closing of all wells in the city of Victoria." Of nine samples of milk obtained by the nuisance inspectors, three were returned as adulterated, one of them having at least 50 per cent. of added water. The milk supplied morning and evening to the Civil Hospital is analysed at least once a month; in all, thirty-six samples were analysed during the year.

An interesting account is given of a substance called "ch'à tsai ping," being the refuse matter of the seeds of the *camellia oleifera* after the *tea oil* has been expressed. It appears to be used for poisoning fish; the fish so killed do not seem to act injuriously when used as food. It is used in gardens for eradicating earthworms, the cake being crushed and boiled and the decoction poured on the grass. The worms come to the surface; the smaller die, but the larger recover after a time. The worms are eaten greedily by the fowls and ducks, which experience no inconvenience, but appear to thrive on them.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE report of the Committee of Management of the two Colleges, which was adopted at the meeting of the Council on the 13th inst., included amongst its recommendations a revised schedule of drugs. This is similar to the old schedule, but combines various alterations in and additions to it, suggested by the examiners in materia medica and pharmacy. This revised schedule will be used on and after Oct. 1st, 1889. Those drugs of which the candidates are required to show a practical knowledge are printed in italics. The only drug expunged from the list is cinchonine; the new ones added are—acetic acid, zinc chloride, citrate of iron and quinine, butyl-chloral hydrate, collodion, apomorphine, codeine, ammoniacum, myrrh, guaiacum, senega, croton oil, cascara sagrada, copaiba, cubebs, and santonin. The following is the complete list:—

Chlorine; chlorinated lime; chlorinated soda. Bromine; bromides. *Iodine;* iodides. *Sulphur;* sulphurous acid; sulphides. Phosphorus; phosphates; hypophosphites. Acids—Hydrochloric, nitric, sulphuric, boric, acetic, citric, tartaric, *hydrocyanic* (*dilute*). Alkalies—Ammonia, potash, soda. *Ammonium carbonate*, chloride, acetate. Potassium bicarbonate, sulphate, chlorate, *permanganate*, acid tartrate. Sodium bicarbonate, sulphate; borax. Calcium oxide, carbonate. Magnesia, magnesium carbonate, *magnesium sulphate*. *Alum*. Zinc oxide, chloride, *zinc sulphate*. *Copper sulphate*. Silver nitrate. *Mercury*, oxides, *chlorides*, iodides. Lead oxide, acetate, subacetate. Tartarated antimony. Arsenious acid; arseniates. Bismuth subnitrate, carbonate, citrate. Iron carbonate, *sulphate*, perchloride, *ammonio-citrate*. Citrate of iron and quinine, Dialysed solution of iron. Alcohol, *ether*, *chloroform*, *iodoform*. *Chloral hydrate*. Butyl-chloral hydrate. Nitrite of amyl. Nitrous ether. Nitro-glycerin. Collodion. *Carbolic acid*. Salicylic acid. Salicylate of soda. Aconite; aconitine. *Opium;* morphine; apomorphine; codeine. Coca; cocaine. Jaborandi; pilocarpine. Quassia. Calumba. Gentian. Calabar bean; physostigmine. Caffeine. Conium. Asafœtida. Ammoniacum. Myrrh. Guaiacum. Cinchona; *sulphate of quinine*. Salicine. Ipecacuanha. Senega. Glycerine. Nux vomica; strychnine. Belladonna; atropine. Hyoscyamus. Stramonium. Cannabis Indica. Digitalis. Castor oil; croton oil; *aloes and aloïn;* cascara sagrada; *colocynth;* elaterium and elaterin; *jalap;* podophyllin; *rhubarb*; *senna*. *Camphor*. Turpentine. Tannic acid. Gallic acid. Kino. Catechu. Benzoic acid. Copaiba. Cubebs. Colchicum. Squill. Male fern. Santonin. *Ergot*. Cod-liver oil. *Cantharides*.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Diphtheria at Ashbourne.—An interesting report has been submitted to the Local Government Board on diphtheria at Ashbourne by Dr. BRUCE LOW. Ashbourne is a small centre for agricultural purposes and for visitors who in summer travel about Dovedale; there are also some manufactures in the district. Diphtheria, as in so many cases, was formerly wont to attack the rural area around the small town; indeed, the last recorded diphtheria death in the urban district prior to the outbreak under consideration seems to have taken place as far back as 1883. Then the town began to suffer slightly, two non-fatal attacks taking place in a yard which has been associated with the present attack. Again there was a lull, until in September, 1887, there began a prevalence of throat disease, which was maintained epidemically and continuously month by month until the end of April, 1888. In all twenty-six houses were invaded, the attacks numbering fifty-six and the deaths eighteen. For a while the disease was not fully understood. The real signi-

ficance seems to have been masked behind a widespread and general prevalence of sore-throat, and even fatal attacks grew from "croup" to "diphtheritic croup" and "croupous diphtheria" on to diphtheria itself. The cause was also somewhat involved. Thus at first sight school attendance seemed very intimately associated with the diffusion of the infection; indeed, after examining into the circumstances, Dr. Low found that only two out of fourteen families invaded in November and December, 1887, had no apparent connexion with the National Infants' School, the school itself being situated near the Market-place, where the sanitary conditions were especially defective, and where there was overcrowding of houses on area. As confirming the suspicion of school influence, there was also the general knowledge, now very generally accepted, that at the autumn season schools—and especially infant schools, as containing children at ages most susceptible to diphtheria—are apt to afford facilities for a minor form of illness, essentially diphtheritic in its nature, to rapidly extend itself among children, with a concurrent development and intensification of the grave phenomena of unmistakable diphtheria. But another consideration had to be taken account of, and this suggested an altogether different cause. Ashbourne is divided into two parts by the Henmore brook. Two-thirds of a population numbering in all 3845 live north of the brook, in Ashbourne proper; the remaining third, which comprises essentially the artisan class, live to the south of it, in Compton. Now just before the commencement of the epidemic seventy-three children from the Ashbourne side and forty-two from the Compton side attended the infant school; and yet the diphtheria was limited to such of them as resided in Ashbourne, to the north of the stream. The majority of the sufferers also came from the proximity of the Market-place, where diphtheria had occurred four years previously, and where the special local circumstances are described to have been much as follows:—General prevalence of dirt, overcrowding of dwellings, foul privies emptied and not emptied, pig-keeping, emanations from slaughterhouses, slaughterhouse blood in the sewers, congregation of human beings and animals, along with a haunting of public-houses by strangers to the town, and the promiscuous using by all comers of the back-yard open privies. Unfortunately the circumstances were so involved, and the commencement of the epidemic was so remote, that, notwithstanding what was evidently a painstaking inquiry, no distinct conclusion could be come to as to the actual cause of the diphtheria or of the special circumstances governing its diffusion. But this is not the first time that significant evidence has been forthcoming as to a possible connexion between diphtheria and conditions involving animal refuse, and especially slaughterhouse refuse; and hence Dr. Low does well to urge that in future inquiries attention should be devoted to slaughterhouses and their sewer connexions, as possibly having some relation to the origin of this disease. As a rule, it must necessarily be to medical officers of health that we must look for such precise information on this point as can only be acquired by those who are on the spot when the evidence is recent; for whether it be a necessity or not of the method adopted by the central department, it seems to be a very general practice to postpone official inquiries until the epidemics inquired into are either nearing their end or altogether over, and until the causes to which they owe their origin are so long past as to be wellnigh forgotten.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5304 births and 3397 deaths were registered during the week ending Dec. 15th. The annual rate of mortality in these towns, which had been 17·8 and 18·6 per 1000 in the preceding two weeks, further rose last week to 18·9. During the first eleven weeks of the current quarter the death-rate in these towns averaged 19·4 per 1000, and was 2·0 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 11·7 in Halifax, 13·9 in Brighton, 14·2 in Hull, and 15·2 in Bristol. The rates ranged upwards in the other towns to 24·0 in Liverpool, 24·1 in Manchester, 25·0 in Cardiff, and 32·4 in Blackburn. The deaths referred to the principal zymotic diseases, which had been 526 in each of the previous two weeks, rose last week to 539; they included 274 from measles, 73 from whooping-cough, 53 from scarlet fever, 53 from diphtheria, 47 from "fever" (principally enteric), 37 from diarrhœa, and only 2 from small-pox. The deaths from these zymotic diseases last week caused the lowest death-rates in Hull and Brighton, and the highest rates in Salford, Cardiff, and Blackburn. The greatest mortality from measles occurred in London, Salford, Leeds, Portsmouth, Oldham, Liverpool, Cardiff, and Blackburn; from whooping-cough in Bradford, Birmingham, Leeds, Blackburn, and Cardiff; from scarlet fever in Derby and Blackburn; and from "fever" in Salford. Of the 53 deaths from diphtheria in the twenty-eight towns, 39 occurred in London, 6 in Manchester, 3 in Liverpool, 2 in Salford, and 2 in Portsmouth. Small-pox caused one death in Hull and one in Cardiff, but not one in London or in any of the twenty-five other great towns. No small-pox patients were under treatment during the week in the Metropolitan Asylum Hospitals, and only one in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 880, against numbers declining in the four preceding weeks from 980 to 922; 76 cases were admitted to these hospitals during the week, against 96 and 79 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 258 and 277 in the preceding two weeks, further rose last week to 330, but were 211 below the corrected average. The causes of 70, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Sunderland, Portsmouth, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Preston, Hull, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·8, 19·1, and 19·3 in the preceding three weeks, was again 19·3 in the week ending Dec. 15th; this rate exceeded by 0·4 the mean rate in the twenty-eight large English towns. The rates in these Scotch towns ranged from 13·3 and 14·1 in Leith and Edinburgh to 23·5 in Aberdeen and 33·7 in Paisley. The 448 deaths in the eight towns showed a further increase of one upon the numbers returned in recent weeks, and included 14 which were referred to measles, 13 to diarrhœa, 8 to diphtheria, 7 to scarlet fever, 4 to whooping-cough, 3 to "fever" (principally enteric), and not one to small-pox; in all, 49 deaths resulted from these principal zymotic diseases, against 60 and 49 in the preceding two weeks. These 49 deaths were equal to an annual rate of 1·9 per 1000, which was 1·1 below the mean rate from the same diseases in the twenty-eight English towns; this rate ranged in the eight towns from 0·0 in Perth to 4·7 in Greenock and 8·4 in Paisley. The fatal cases of measles, which had declined in the preceding five weeks from 27 to 8, rose again last week to 14, of which 6 occurred in Paisley, 4 in Glasgow, and 4 in Greenock. The 13 deaths attributed to diarrhœa showed a marked increase upon the numbers in recent weeks, and exceeded the number in the corresponding week of last year by 4. The deaths from diphtheria, scarlet fever, and whooping-cough, however, showed a decline; 4 of the 8 deaths from diphtheria occurred in Glasgow, and the 7 deaths from scarlet fever included 3 in Glasgow and 2 in Greenock. The 3 deaths from "fever" corresponded with the number in the previous week; 2 occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 86 and 113 in the preceding two weeks, declined again last week to 97, and were 66 below the number in the corresponding week of last year. The causes of 59, or more than 13 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 22·9 and 27·0 per 1000 in the preceding two weeks, was 26·6 in the week ending Dec. 15th. During the first eleven weeks of the current quarter the death-rate in the city averaged 24·6 per 1000, the mean rate during the same period being 18·5 in London and 15·3 in Edinburgh. The 180 deaths in Dublin showed a decline of 3 from the number in the previous week; they included 8 which were referred to "fever" (typhus, enteric, or ill-defined), 4 to measles,

3 to scarlet fever, 2 to whooping-cough, 1 to diphtheria, 1 to diarrhœa, and not one to small-pox. Thus the deaths from these principal zymotic diseases, which had been 11 and 13 in the previous two weeks, further rose last week to 19; they were equal to an annual rate of 2·8 per 1000, the rate from the same disease last week being 3·1 in London and 0·8 in Edinburgh. The fatal cases of measles and scarlet fever in Dublin exceeded the numbers in recent weeks, while the deaths from the other zymotic diseases scarcely varied from the numbers in the previous week. Five inquest cases and 4 deaths from violence were registered; and 54, or nearly a third, of the deaths occurred in public institutions. The causes of 24, or more than 13 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

RAYNAUD'S DISEASE.

To the Editors of THE LANCET.

SIRS,—At the meeting of the Hunterian Society, on the 28th ult., Mr. Hutchinson read a paper on Affections allied to Reynaud's Disease, which it is to be hoped he will publish. The literature of the subject has lately been enriched by the appearance, in one of the last volumes of the New Sydenham Society's issue, of Dr. Barlow's translation of Raynaud's two treatises, with important additions by the translator. In addition to the references therein to numerous cases and reports, allusion may be made to several recent records. Dr. Seymour Taylor has described in detail in THE LANCET[1] a well-marked case of Raynaud's disease in a very stout woman of fifty-six. Dr. Clifford Beale[2] has noted one case in an intemperate man, and a second in connexion with ague. Other cases have been brought forward by Dr. Ernest Jacob,[3] of Leeds, Dr. Suckling,[4] of Birmingham, and Mr. J. R. Lunn,[5] besides two very characteristic cases just published by Dr. Affleck.[6] Dr. Smith Shand, of Aberdeen, has narrated in a contemporary,[7] under the same designation, a case of pyrexial erythema with nephritis, in which large gangrenous patches appeared on all the limbs, but none on the fingers or feet. It may be questioned whether this interesting case, with that brought before the clinical Society last year by Mr. Bellamy,[8] have any real connexion with Raynaud's disease; the phenomena seem more suggestive of capillary embolism than of arterial spasm. Cases occupying a doubtful or half-way position are met with, such as those recorded in the last two volumes of the Clinical Society's Transactions by Dr. Coupland and by Mr. Treves.

Mr. Hutchinson's paper, with remarks made by Dr. Barlow upon the same occasion, threw much light upon the group of disorders of the circulation in the fingers and toes. Raynaud's designation, "symmetrical gangrene of the extremities," is objected to, as limiting unduly the scope of the malady, and it is better to call the disease at present by the name of its describer. One of the most important facts (and one on which Dr. S. Taylor also has laid stress) is the originally paroxysmal nature of the symptoms—a "local vascular storm," as it has been termed,—although after repeated attacks the changes may become permanent. The development of scleroderma in some of the permanent cases is very remarkable. Dr. Barlow says that this only occurs in the pale (dead hand) form of the disease. I have, however, in a different affection, watched scleroderma developing on the face as a sequel to long-continued congestion (not pallor).

Raynaud's two stages of "local syncope" or ischæmia, and "local asphyxia" or cyanosis (not to mention a third stage, of erythema), are now said to constitute rather varieties or types of the disease than stages in its course: some cases have pale, shrunken fingers, others purplish and swollen. The explanations offered by writers for these phenomena are various, and not altogether consistent. Raynaud, in his first paper, attributed the ischæmia to "spasm of the capillary vessels"; in his second paper this is modified, and he speaks of contraction of the smallest arteries and veins as the condition present. In the cyanotic state he considers that the venules are open, the arterioles remaining contracted, and the capillaries fill by venous reflux. Some observers, on the other hand (as Dr. Starr in "Pepper's System" and Dr. Affleck), have conjectured that venous as well as arterial spasm was present in the latter condition, and arterial spasm alone in the former. I understood Mr. Hutchinson to intimate that, granting the ischæmia to be due to arterial spasm, there was as yet no satisfactory explanation of the cyanosis. The anatomical structure of the capillaries, properly so called, surely excludes the idea of spasm in their case. Nor does spasm of the comparatively lax venous channels seem a very probable efficient cause. Now I submit that the natural result of spasm of a "terminal" artery may be inferred from the well-known consequences which follow obstruction of such an artery by other means; for instance, by an embolus. In this case we know that, the *vis a tergo* being withdrawn, the blood pressure falls to zero in the capillaries, and these latter fill by reflux from the veins (as is commonly supposed), being distended with dark blood. If the stasis be complete, blood exudes through the capillary walls, which no longer maintain their nutrition, and, the part becoming infiltrated with dark decomposing blood, necrosis or gangrene results. Spasmodic contraction of small terminal arteries (and those of the fingers and toes are for all practical intents "terminal"), uncomplicated by other conditions, must have a similar effect, differing only according to the degree of the obstruction, whether partial or complete. I would therefore submit that the state of local asphyxia or cyanosis, passing on in some cases to gangrene, is adequately accounted for by spasm of the small arteries alone. It is to my mind much more difficult to explain the blanched, shrunken condition of so-called local syncope or ischæmia. We have here, I submit, something more than arterial spasm at work; the capillaries are emptied, and, as they have no strictly contractile tissue, one would look for some cause exerting pressure upon them. Can it be that a gradual chilling of the entire thickness of the member (cf. frost-bite) induces a shrinking of the skin and other tissues, such as would exercise this pressure?

The occurrence of peripheral neuritis in Raynaud's disease is now well known, having been demonstrated by Dr. Wigleworth and by Dr. Affleck in this country, besides prior observers abroad. But recent investigation, as shown by Dr. Barlow and by Mr. Hutchinson, makes it probable that the neuritis is a result rather than a cause, occurring in certain cases when the disease has become permanent and severe, and being sometimes followed by scleroderma. This view would relieve the pathology of the disease of one possible theory, and one which is rendered improbable by the paroxysmal nature of the symptoms. The analogy between Raynaud's disease and paroxysmal hæmoglobinuria and other vaso-motor spasms is very interesting, and may be said now to rest on a firm basis of clinical records.

I am, Sirs, yours truly,

Finsbury-circus, E.C., Dec. 11th, 1888. R. HINGSTON FOX.

[1] Vol. i. 1887, p. 208.
[2] Brit. Med. Journ., vol. i. 1887, p. 730.
[3] Ibid., p. 780.
[4] THE LANCET, vol. ii. 1887, p. 964.
[5] Trans. Clin. Soc., vol. xx., p. 259.
[6] Brit. Med. Journ., vol. ii. 1888, p. 1269.
[7] Ibid., vol. i., p. 343.
[8] Trans. Clin. Soc., vol. xx., p. 195. See THE LANCET, vol. i. 1888, p. 730.

EXAMINATION FOR THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

"Who shall examine the examiners?"—*Punch.*

SIRS,—One of your Birmingham correspondents was kind enough to allude to some remarks of mine at the medical students' dinner, but he did not convey a quite sufficiently extended nor an altogether accurate idea of my complaint. Of late it has become part of my duty to look into the matter of the College examinations and their results, and I must say that my impression of them is most unfavourable. In the last paper for the pass examination of the Fellowship there are four questions, all of which had to be answered, and of these the first and third are questions so simple that they ought only to have been recorded as questions for the Membership. The second question asks the candidate to state the life-history of the hydatid echinococcus

hominis, giving all the stages of its development. This is a question which, in the light of recent researches, throwing doubt altogether upon the text-book descriptions, I say, cannot at present be accurately answered. The question further goes on to ask how the candidate would diagnose this disease when present in the abdomen, and to describe the methods of surgical treatment which he would employ for it in this situation. No clue is given as to whether this is meant to include the separate diagnosis and treatment of hydatid disease of liver, kidney, spleen, broad ligament, Fallopian tube, &c., and the peritoneum, or whether it means the peritoneum only. If the latter is meant, then I say no diagnosis is at all possible. I have seen and operated upon as many cases of this kind, I am perfectly certain, as any living surgeon, and the only position within the abdomen in which I have ever seen a diagnosis even guessed at by practitioners of all shades of opinion, rank, and experience, from the President of the Royal College of Physicians downwards, has been the liver. The text-book statement that hydatid disease of the peritoneum may be diagnosed by hydatid *fremitus* is one which is totally irreconcilable with my own experience, and my views upon this question have received a remarkable confirmation by the fact that one of the members of the Court of Examiners responsible for it was called into consultation to a case of hydatid disease of the abdomen, and signally failed to make any diagnosis whatever. The fact is recorded in a recent number of your own journal, and I now ask this particular examiner specifically how he would have answered his own question. Again, if this question is to mean that surgical treatment is to be described for hydatid disease of all the organs in which it might occur within the abdomen, the candidate would have needed the whole time allowed for the whole four questions in which to give descriptions of eight or ten totally different operations. On the other hand, if it meant only hydatid disease of the peritoneum, then I confess that, with an exceptional experience, the question would have floored me, and therefore I am reasonably complaining of the gross injustice of it to less experienced candidates. The fourth question contains the extraordinary clause which asks the candidate to indicate the cause of the great mortality formerly prevailing after fracture of the base of the skull. I have discussed this point with twelve hospital surgeons of large experience, with one exception all Fellows of the College of Surgeons by examination. With one accord they deny that there is any diminution within their experience of the mortality of this injury. They say that it is as fatal as it has ever been, and no amount of research which we have been able to give to the subject has unearthed any statistical proof to the contrary. We have an uneasy feeling that this question is an antiseptic riddle, and we have discovered a passage in Erichsen (9th edition, vol. i., page 737), which seems to be the only solution to the conundrum. There it is inferred that the employment of antiseptic measures (syringing out the external ear with a solution of carbolic acid, and plugging it with iodoform) will contribute to the recovery of a fracture of the base of the skull, which is compound when the membrane is torn. But no precautions are recommended for the Eustachian tube. Some curious facts indicate that this extraordinary question was put for the purpose of getting this still more extraordinary reply. If it be so, then I say that, if a single candidate has failed by a single mark on this account, the examiners need to be hauled over the coals; for it is simply intolerable that, while we in the provinces are teaching our students to laugh at all such crotchety nonsense as this, the examiners in London should be enabled to pluck our students for want of belief. The alternative is that, if this question was not put for the purpose of getting this crotchety answer, it is altogether meaningless.

I am, Sirs, yours, &c.,

Birmingham, Dec. 17th, 1888. LAWSON TAIT.

"ARE WE DEGENERATING PHYSICALLY?"

To the Editors of THE LANCET.

SIRS,—In a leading article of Dec. 1st, you seem to attach considerable importance to the opinions of many members of the profession on the above subject, elicited by an energetic "northern lay contemporary." The subject is no doubt of vast importance, and therefore all the more is it necessary to receive with much caution and scepticism the opinions of medical men, no matter of what eminence, unless they are based on patient and accurate observations, and not merely on personal impression formed more or less haphazardly. Before receiving their opinions, I would like to know what methods they adopted in order to honestly come at the facts. I have before me the carefully drawn up report of the Anthropometric Committee of the British Association. The author, Charles Roberts, F.R.C.S., has devoted long and careful consideration to the subject, and his statistics have been methodically and laboriously worked out, and are therefore worthy of the highest regard. From this report I see that the physique of the inhabitants of these islands varies very considerably according to social standing and environments, the professional classes being the highest in the scale, and the artisans in the towns being the lowest, the intermediate position being occupied by the country labourers, farmers, &c. I also find that living in towns exercises a deleterious effect, especially upon the poorer populations in the crowded districts. In the case of London the ill effects have naturally been more wide-spreading, and the physical standard of the home counties has sensibly depreciated, owing to the constant drain of all the best manhood to supply the ever-increasing demand for stout artisans and labourers for the heavy trades in the metropolis. Granted, then, that town life does exercise a prejudicial effect upon the physique, how are we warranted in indulging in optimistic views of the future of the physique of the inhabitants of these islands, when we see year by year the exodus from the country and the crowding into large towns in a continuous ever-increasing stream? Civilisation has a general tendency to improve the physique, and the question should not be, "Are we degenerating?" but "Are we improving?" The physique of the town populations probably is better than it was thirty years ago owing to improved sanitary surroundings, and still more to the immigration from the country; but I ask, are we to be content and indulge in optimistic felicitations while the social changes going on around us are gradually attracting the country populations into the vortex of the big towns, and as surely reducing the physical type to the dead level of the artisan classes?

I am, Sirs, your obedient servant,

Sheffield, Dec. 10th, 1888. C. N. GWYNNE, B.A., M.D.

"THE ALLEGED INCREASE OF CANCER."

To the Editors of THE LANCET.

SIRS,—In the annotation in your issue of Dec. 15th upon the above subject you remark that improved diagnosis of malignant disease and greater accuracy in making returns do not suffice to explain the rise in the death-rate from cancer, but that more detailed statistical returns, especially as to the organs primarily affected, the ages and sexes of the subjects, and the districts in which the various forms of cancer most prevail, are required. Herewith I enclose a copy of a paper read by me at the Royal Medical and Chirurgical Society on April 29th, 1884, by which you will see I drew attention to this subject and produced detailed accounts. I compared the number of deaths which occurred in England and Wales in the years 1850, 1861, 1872, and 1881, by which I showed that mortality had increased from 4966 in 1850 to 13,542 in 1881, and that the death-rate in the 1,000,000 had increased from 320 in the former year to 520 in the year 1881. I further contrasted the increase in the mortality from cancer in each division and county in England and Wales, and then analysed the death-rate of each county separately, and finally drew attention to certain factors existing in the different counties to which might be attributed to a greater or less extent the increase observed. I analysed the deaths at different ages and of different sexes. As you remark, a careful study of this is very suggestive. In one of the concluding passages I said: "I do not wish to be an alarmist, but because it is incontestably proved that cancer is becoming more and more common, is it a reason that we should shirk the subject? On the contrary, I contend it is all the more reason why we should face the fact boldly, and endeavour if possible to discover the cause of the increase, and, having discovered the cause, to apply ourselves to find a remedy."

I am, Sirs, your obedient servant,

FREDK. BOWREMAN JESSETT.

Upper Wimpole-street, W., Dec. 17th, 1888.

NATIONAL PENSION FUND FOR NURSES.

To the Editors of THE LANCET.

SIRS,—A short time ago you passed some unfavourable criticisms on the above fund. I have for some time past been engaged during my leisure hours in the preparation of tables for the sole benefit of the working classes of this town, which I propose shortly to publish. The object I have in view is to show the working classes that the investment of their small savings at a low rate of interest in a savings bank, building society, or other similar institution is far preferable, as an *investment*, to an insurance on their lives, or an investment in an annuity office, even though that annuity office be the National Pension Fund for Nurses.

It has occurred to me that a few remarks on the advantages or otherwise of nurses in hospitals &c. investing their savings in the National Pension Fund may be interesting to your readers. I am quite aware that the actuaries of life insurance and annuity companies will consider it presumptuous on the part of a person from the country daring to write on such a subject. I had, however, better be candid at the commencement of my remarks, and inform them that, so long as they cannot make either more or less than sixty-four of eight times eight, I defy the combined wisdom of all the London actuaries to disprove my conclusions.

Permit me to put a few very simple questions to the promoters, patrons, &c., of "The National Pension Fund for Women." 1. Are the tables of the death-rates of females constructed by Dr. W. Ogle (1871–80), published in 1885, showing the number of survivors at the end of every year out of one million born, reliable? 2. When women at thirty, thirty-five, or forty years of age enter the occupation of nurses at hospitals, infirmaries, &c., has such an occupation a tendency to increase the expectation of life over the general population of female life as ascertained by Dr. W. Ogle? 3. Are women who are devoting the best portion of their lives to such dangerous occupations deserving of the low rate of 2½ per cent. interest on their savings, without deductions? 4. Does "The National Pension Fund," independent of charitable gifts, offer a return of 2½ per cent. interest on the contributions of nurses?

I will assume that Dr. Ogle's tables are reliable, and that women engaged as nurses &c. in hospitals will have the same expectation of life as the general population of women, and I will prove that the National Pension Fund does not propose to pay these women even 2½ per cent. interest on their savings. For this purpose allow me to ask and answer the following question:—

A woman, aged forty, who is a nurse in an infirmary, wants to provide herself with an annuity of £10 per annum after attaining fifty-five years of age. What is the value of such an annuity in one sum paid down at 2½ per cent. interest, and also what is the value in annual payments till she attains to the said age of forty—that is, in annual payments for fifteen years, according to Dr. W. Ogle's tables of decrements of female life (1871–80)?

The following is the correct mathematical solution; and the value of deferred annuities can be fixed with the same accuracy as the values of immediate annuities:—

Value in number of years' purchase of an annuity upon the life of a female aged fifty-five, based upon Dr. Ogle's tables of decrements of female life, and taking interest at 2½ per cent.	12·8863

Out of 596,113 women living at forty years of age, there will be 477,440 living at fifty-five years of age, and as the present value of £1, to be received fifteen years hence at 2½ per cent., = ·690,465, and the probability of a woman aged forty living fifteen years is $\frac{477,440}{596,113}$ the amount payable at forty years of age is $12{\cdot}8863 \times {\cdot}690,465 \times \frac{477,440}{596,113}$ = 7·1262 years' purchase of the annuity = £71 5*s.* 3*d.*, the amount which ought to be paid in one sum at forty years of age to secure £10 per annum for life after attaining fifty-five years of age. Rate of interest 2½ per cent. If 3 per cent. interest were allowed to the nurses on their savings, the price to be paid should be £61 12*s.* 4*d.* The amount a woman has to pay to the National Pension Fund is £82 12*s.* 6*d.* (See Table D, page 21 of Prospectus.)

The annual payments for fifteen years, from forty to fifty-five, at 2½ per cent. interest, subject to failure on extinction of life, is arrived at as follows:—

Value of a female's life at forty, from Dr. Ogle's tables of decrements, and calculated at 2½ per cent. interest	18·3284
Deduct value of an annuity for fifteen years, subject to failure as found above...	7·1262
Number of years' purchase which ought to be given for an annual payment from forty to fifty-five at 2½ per cent. interest =	11·2022

and $\frac{71{\cdot}262}{11{\cdot}202}$ = £6 7*s.* 3*d.* annual payments at the end of each year.

and $\frac{71{\cdot}262}{12{\cdot}202}$ = £5 16*s.* 10*d.* annual payments at the beginning of each year.

The annual payment to the National Pension Fund for fifteen years for a pension of £15 at fifty-five is 18*s.* 9*d.* per month, which payment is equal to £7 10*s.* per annum (by monthly payments) for a pension of £10 per annum (see Table A, page 14, of prospectus). Comment on the above figures is quite unnecessary, as the annual payments are 25 per cent. in excess of what they ought to be.

I have selected the age of forty in consequence of the following paragraph in the Company's prospectus in reference to this wonderful Table A.

"The contributions under this table are reduced to a minimum, and therefore *they are not returnable under any circumstances*. On account of the low rate of contribution for the pension secured, this table is suitable for nurses of forty and upwards, or for those who do not intend to change from nursing to any other occupation, or who have not and are not likely to have others dependent upon them at the time of death. Anyone may enter for a higher or lower rate of pension under this table by making known her special requirements to the Secretary."

In conclusion, I will just remark that carefully prepared annuity and insurance tables, on strict mathematical principles, convince me that a great many so-called actuaries in this country are mere copyists. I shall probably at a future day have some interesting comparisons to make about insurances and annuities.

I am, Sirs, yours faithfully,

Leeds, Dec. 11th, 1888. THOMAS FATKIN.

P.S.—It must be remembered that nurses in hospitals are not "selected lives," and the difference between 2½ per cent. and the rate at which the company can lend ought to pay all expenses of loading, &c.

*** We give Mr. Fatkin's figures publicity because they appear to us to be correct, at the same time adding, however, in our own behalf that the criticisms which we have passed upon the fund do not depend upon the adoption of any particular table of mortality, or indeed upon any assumptions which it is even possible for the actuary to the fund to call in question. We have shown by his own representations that he reckons and expects to have a *very large surplus* to distribute eventually, and Mr. Fatkin's elaborate figures serve to show what ground there is for this expectation. We object that a large surplus is a direct temptation to extravagant expenditure upon the mere machinery of advertising and management, and that sound policy requires that the tables should give *from the first* the full benefit that can be safely reckoned to arise with thrifty management, and that so much surplus only should be shown by the mathematical budget as is necessary *to make the undertaking reasonably safe*. The creation of illusory bonus by demanding needlessly heavy premiums is certainly to be deprecated, and ought to have been scrupulously avoided in connexion with this institution. The facts on which this objection rests are not in dispute, and cannot come into dispute; and thus it will be seen that our criticism, though parallel to that which Mr. Fatkin makes, is perfectly independent of his, notwithstanding that it is strongly corroborated by his figures. Another ground of complaint which we find in the prospectus is the exceedingly bad

adaptation of the benefits offered to the actual needs of nurses. An arbitrary interdict upon sick benefits, unless in conjunction with pension benefits, is one instance of this lack of appreciation; and the absurd provisions under which nurses are invited to propose for policies subject to premiums of £30, £50, and even hundreds of pounds a year, is another example of the same kind. These are the flaws that we want to see corrected in the scheme; and although we are glad to allow Mr. Fatkin to make any well-founded criticism in our columns, it must not be assumed that we have changed our ground or have in the least abated our demand for a revision of the kind which we have heretofore indicated.—ED. L.

THE CAUSATION OF DISEASES IN CHILDREN.

To the Editors of THE LANCET.

SIRS,—The tables published by Dr. Robert Lee, in your last issue, enable us to construct an aphorism—viz., "Rickets never occurs without lung disease." But we may, I think, go even further, and say, "Rickets never occurs without bronchitis." It is equally true, however, that "Rickets never occurs without enteritis," so that in studying the causation of this disorder the latter should occupy an equal share of our attention. Bronchitis interferes with respiration, enteritis with alimentation. Each, therefore, leads to profound changes in the blood; and since the composition of the blood determines, in large measure, the environment of each cell of the body, it follows that development must be largely interfered with if an individual suffers from either of these disorders for any length of time during the early years of life. We have at present, however, no logical grounds for assuming that either bronchitis or enteritis is a cause of rickets. With equal justice they may be regarded as complications of the disease, but even then they might, by their secondary effects, furnish many characteristic features.

My chief object in writing this letter is to call attention to what I believe to be by far the most important disease in children—i.e., chronic enteritis. This disorder, in its well-developed form, is popularly termed "consumption of the bowels." Its main features are large abdomen, foul-smelling, abnormally coloured, slimy, and (in severe cases) bloody motions. Of these several symptoms, the foul smell of the motions is by far the most important. Healthy motions have an unpleasant odour, but there is a vast difference between this physiological odour and the insupportable stench of the motions in question. I say it is the most important symptom because, in the first place, it is always present; and secondly, because it appeals most readily to the senses, and can be but seldom overlooked. We should never neglect to inquire after this particular. The character of the motions affords a most important index of the general health of the child, and if the mother can succeed in keeping these healthy the child will grow up strong and vigorous. Be it noted that children are very seldom carried off by disease due to hereditary morbid taint. I have no hesitation in saying that, practically, all cases of bronchitis, "consumption of the bowels," and so-called "struma" (all of which cause an enormous number of deaths) are due to neglect—neglect as to food, ventilation, and the simplest common-sense precautions.

It has been to me, for several years, a very interesting task to compare the health of brothers and sisters, and I have come to the conclusion that when one or two of a family are delicate, while the others are healthy, the delicacy has always had such an accidental beginning, as we may call it; and, further, that in most cases where the *majority, or all*, the children are sickly, the cause is not an inherited weakness, but the faulty system of bringing up to which all the children had been subjected. It would, of course, be absurd to disregard altogether the influence of hereditary weakness, but I am convinced that, so far as diseases of children are concerned, this plays a very subordinate part, and that whatever weakness belongs to the new-born infant is rather the result of ante-partum conditions of environment. I have tested the truth of these statements by a large number of observations, and I could cite numerous cases where weakly infants have, with judicious management, grown up strong and vigorous, just as, on the other hand, I could give a dismal list (as who indeed could not?) of strong and vigorous infants who, through faulty management, have grown up into sickly, miserable specimens of humanity, if indeed they have not been actually destroyed in their infancy or childhood.

I am, Sirs, yours faithfully,

Dec. 10th, 1888. HARRY CAMPBELL, M.D.

SIR MORELL MACKENZIE AND THE ROYAL COLLEGE OF PHYSICIANS.

To the Editors of THE LANCET.

SIRS,—I beg to enclose you a copy of the correspondence which I have sent to the daily papers, and shall be obliged by your publishing it in your next issue.

I am, Sirs, yours faithfully,

MORELL MACKENZIE.

19, Harley-street, Cavendish-square, W., Dec. 17th, 1888.

No. 1.

Letter from Sir Henry Pitman, M.D., Registrar of the Royal College of Physicians, London, to Sir Morell Mackenzie, M.D.

Royal College of Physicians, London, S.W., Nov. 20th, 1888.

DEAR SIR,—It has been said in my hearing that you are no longer a member of this College. As I have not received any official notice that you have surrendered your membership, I should feel obliged by your informing me whether there is or not any ground for the statement.

I am, yours faithfully,

(Signed) HENRY A. PITMAN, Registrar.

Sir Morell Mackenzie, M.D.

No. 2.

Royal College of Physicians, London, S.W., Nov. 22nd, 1888.

DEAR SIR,—On the 20th inst. I addressed a letter to you, and, fearing it may have miscarried, I enclose a copy. As it is important that I should be accurately informed on the question put in that letter, may I request the favour of an early answer?

I am, yours faithfully,

(Signed) HENRY A. PITMAN, Registrar.

Sir Morell Mackenzie, M.D.

No. 3.

19, Harley-street, Cavendish-square, W., Nov. 23rd, 1888.

DEAR SIR,—I received your letter dated Nov. 20th, and also your second letter, dated Nov. 22nd, enclosing a copy of the previous one. I am sorry to have given you the trouble of writing twice, but I did not recognise the urgency of your first note, and at present I am so busy that my correspondence occasionally gets behindhand. I am not surprised at it having been said in your hearing that I am "no longer a member of" the College, as for the last fifteen years I have as far as possible suppressed my connexion with your institution. I only became a member because that qualification is necessary for the medical staff of the London Hospital, and I should have resigned my connexion with the College, when my private engagements necessitated my giving up my hospital appointment, had I known that I could do so by a simple notice. As I gather from your letter, however, that this method is recognised, I shall be much obliged if you will be good enough to omit my name from future lists of members.

I am, yours faithfully,

(Signed) MORELL MACKENZIE.

Sir Henry Pitman, M.D., Registrar, Royal College of Physicians, London.

No. 4.

Royal College of Physicians, London, S.W., Nov. 26th, 1888.

DEAR SIR,—Let me thank you for your reply of the 23rd instant to my letters of the 20th and 22nd, and to express my regret that you should have been put to any trouble in the matter. Let me add that it is the custom, when a member resigns his membership, to return his diploma to the College. Believe me, yours faithfully,

(Signed) HENRY A. PITMAN, Registrar.

Sir Morell Mackenzie, M.D.

No. 5.

19, Harley-street, Cavendish-square, Nov. 28th, 1888.

DEAR SIR,—I regret to say that I do not recollect having seen my diploma since I sent it to the secretary of the London Hospital twenty-two years ago. I suppose that he forgot to return it to me after my election. I have written to the registrar of the General Medical Council requesting him to remove my name, if, indeed, the title was ever registered, of which I am by no means sure. Perhaps, however, if it would not be troubling you too much, you would be good enough to give notice yourself to the registrar of my resignation. I am, yours faithfully,

(Signed) MORELL MACKENZIE.

Sir Henry Pitman, M.D., Registrar.

No. 6.

Royal College of Physicians, London, S.W., Nov. 30th, 1888.

DEAR SIR,—I thank you for your letter of the 28th. I have notified, in accordance with your wish, your resignation as a member of this College to the registrar of the General Medical Council.

Yours faithfully,

(Signed) HENRY A. PITMAN, Registrar

Sir Morell Mackenzie, M.D.

MANCHESTER.

(From our own Correspondent.)

MANCHESTER DEATH-RATE.

PUBLIC attention still continues to be called to the excessively high death-rate of the city, the Sanitary Association taking an active part in the agitation. At the first of the public conferences, held a fortnight ago in Ancoats, in addition to the leaders of the movement, a large proportion of the working classes were present in the audience. Dr. Ransome opened the discussion, and laid stress upon the unhealthy condition of large numbers of the dwellings of our poor, and the impure state of the atmosphere around them. The corporate authorities came in for severe criticism at the hands of most of the speakers, though Mr. Alderman W. Smith showed that the corporation was beginning to be aroused, and that the Unhealthy Dwellings Committee were making headway, if slowly, in the herculean task that lay before them. They have lately taken a practical step, which it is hoped may bear fruit, by inviting the owners of old cottage property in the worst districts of the city to come forward and offer such property to the corporation at a reasonable price. The second conference will be held to-morrow in another part of the city, when the special subject for discussion will be the smoke nuisance; this will be opened by Mr. Herbert Fletcher of Bolton, who is himself the owner of large works, and who has done so much to demonstrate beyond dispute the possibility of works and factories being carried on without producing any nuisance by smoke from boiler fires &c. On several occasions deputations have visited his works to have ocular demonstration of this fact, and about ten days ago a large party, organised by the Manchester and Salford Noxious Vapours Abatement Association, paid them a visit with this object in view. The time would appear to have now arrived when some more stringent measures should be enforced to purify the murky atmosphere of our manufacturing towns.

OWENS COLLEGE.

On Saturday night the annual *soirée* of the College Union was most successfully given. For many years this pleasant reunion of past and present students and their friends has been exceedingly popular, but owing to the favourable conditions under which Saturday's gathering took place this must be counted the most successful. For the first time, the whole of the new buildings were at the disposal of the committee, and the various museums and galleries form delightful promenades on occasions such as this. Science in all its branches, literature, and music were all laid under contribution for the amusement as well as the instruction of the visitors, and the secretaries are to be congratulated upon the success attending their labours. The medical students' dinner was held at the Grand Hotel, under the presidency of Mr. Thomas Jones, and lacked nothing either in numbers or conviviality.

SMALL-POX.

Dr. Page's report to the Local Government Board upon the outbreak of small-pox which occurred here in the summer at an industrial school throws but little additional light upon it. The origin is somewhat obscure, but there appears to be but little doubt that it was imported by a child from York, though the authorities of the latter place were apparently free from blame. At present Manchester is free from small-pox, but in the neighbouring borough of Salford there exists what almost amounts to an epidemic of typhoid fever, nearly 100 cases a month having been reported since September, with a corresponding ratio of deaths.

THE ASSIZES.

At the recent assizes a policeman was put upon his trial for having caused the death of a man whom he had arrested, and towards whom he appears to have used an excessive amount of violence. After being locked up one night in the police cells, the prisoner was liberated without anything very serious being noticed; but after a few hours symptoms of cerebral hæmorrhage came on. He was removed to the infirmary, and there died. At the trial, no less than ten medical men were called to give evidence for and against the accused, five of whom were of opinion that the hæmorrhage was due to disease, whilst the others were equally convinced that it was the result of the violence to which the deceased man had been subjected. Owing to this conflict of opinion, the prisoner escaped with eighteen months' hard labour.

PERILS OF FOOTBALL.

The football season has, as usual, brought with it a crop of casualties of a more or less serious nature. Mr. Southam has recently published an account of hæmorrhages into the tissues of the scalp and ear caused by rough play. On Wednesday last, a death took place in the infirmary of a youth from injuries received in the football field. The popularity of the game in the north of England at least remains undiminished, but some steps ought to be taken by the leaders and supporters of it to diminish the risks which attend it as now carried on.

December 18th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE HEALTH OF CARLISLE.

MR. MCKIE, the city surveyor of Carlisle, has prepared a report for the health committee and council relative to a scheme for sewer extension in the city. Mr. McKie's report contains some interesting vital statistics. He remarks that the increase in the population during the last third of a century has been 48½ per cent., or an average yearly increase of 1½ per cent. In 1855 there was one inhabitant to 49½ square yards of building and open space; at the present time there is one inhabitant to 70½ square yards of buildings and open space; so that the inhabitants of the city enjoy 42½ per cent. more of open area and buildings than in 1855. The inhabitants of the new part of the city built since 1855 enjoy an average 114½ square yards of buildings and open space, being 131¾ per cent. more than the city enjoyed in 1855. The average death-rate before the city was sewered was about 28 per 1000, and it is now about 20 per 1000. Mr. McKie says that before the sewers were made the ground water in the winter months was almost the same level as the surface, and it was noticed that almost all the furrows in the agricultural land through which the main sewers passed in 1854-5 had water standing in them, but now the level of the ground water varies from 6 ft. to 10 ft. below the surface of the ground, which must have considerably decreased the humidity of the atmosphere. A considerable part of these lands is now built up, and forms important residential parts of the city.

WORKINGTON AND ITS SANITARY CONDITION.

Judged by the statements made at a public meeting last week, the sanitary condition of Workington is not satisfactory. Most complaints are heard as to the Clay Flatt district, and it is stated that there are at present six cases of typhoid fever in the town. One of the speakers said that the district, or at least some of its streets, might be described in two words, "damp and dirty." It appears it is now nine months since the medical officer of health had called the attention of the local board to the insanitary conditions which existed, and urged the board to take prompt action to remedy the evils.

WINDFALLS FOR WORKHOUSE INMATES.

At the last meeting of the Weardale guardians, Stanhope, Dr. Livingstone, the chairman, announced that he had just opened a letter addressed to himself, as chairman, and enclosing one £10 Bank of England note and two notes of £5, with a request from the anonymous donor that it might be expended on the regalement of the workhouse inmates during the Christmas season.

The late Miss Bell, of Quarry-hill, Cumberland, has left £100 to the Cumberland Infirmary, Carlisle, and £100 each to the Silloth Convalescent Institution and the Bell Memorial Hall, at Bolton-gate.

Newcastle-on-Tyne, Dec. 17th.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—Dr. Farrar, of the fourth district of North Welchford Union (second time); Mr. W. J. Merlin, of Sutton, Isle of Ely (fifth time).

EDINBURGH.

(From our own Correspondent.)

THE ROYAL SOCIETY OF EDINBURGH.

A SOMEWHAT interesting discussion on the etiology of cholera was initiated at the Royal Society last night, when Dr. Woodhead communicated a paper by Neil Macleod, M.D., and Waler J. Milles, F.R.C.S. Eng., both of Shanghai: "On an Inquiry into the Causation of Asiatic Cholera." The investigators began by pointing out that they had been led to the conclusion that Koch was, at the time they commenced their experiments, almost the only worker in the bacteriological field of whom it could be said that he had not published anything subsequently upset, and that consequently special attention was directed at once to the comma bacillus. The results of a number of most careful experiments were detailed, as a result of which they join issue with Klein and Gibbes and with the Spanish Cholera Commission, and arrive at the following conclusions. 1. The comma bacillus of Koch is invariably present, and associated with certain changes, in the small intestine, in cases of Asiatic cholera. 2. There is no evidence to show that it is a normal inhabitant of the human alimentary canal, and therefore no proof for the assertion that it is a result of the disease. 3. The means used to introduce the comma bacillus into, and those used to lessen the peristalsis of, the small intestine of the guinea-pig, cannot be regarded as causing appearances like those of Asiatic cholera, or as causing the death of the animal, far less a mortality of over 60 per cent. 4. Pure cultivations of the comma bacillus, introduced into the stomach under the precautions described, are pathogenic to the guinea-pig. 5. Injected with similar precautions, the contents of the ileum from those animals killed by injections of pure cultivations of the bacillus act in the same manner as pure cultivations of that organism. 6. The organism multiplies in the small intestine of the animal, and there are associated therewith changes similar to those in man in Asiatic cholera. 7. As there are conditions which favour the passage alive of the bacillus through the stomach of the guinea-pig, and also conditions which favour its multiplication in the small intestine of that animal, so in man, as there cannot be a doubt that the organism finds conditions favourable to its multiplication in his small intestine, it must have found conditions favourable to its entrance alive through, in all probability, the mouth and stomach. 8. There is strong evidence, therefore, for regarding the comma bacillus of Koch as the cause of Asiatic cholera.

EDINBURGH UNIVERSITY COURT.

At the meeting of the Edinburgh University Court held yesterday, the committee on the class returns of the University professors and the recognised medical lecturers for 1887-88 reported that they called for no special remarks. The Court decided that in the case of lecturers on science in Edinburgh recognition should be made of the individual lecturers as well as of institutions. Mr. Readman, D.Sc., was recognised as a teacher of practical chemistry whose course of instruction should qualify for graduation in medicine in the University. It was decided to approve of the opening by the Professor of Engineering of a class on sanitary engineering in connexion with graduation in science in the department of Public Health, and the fee was fixed at £3 3s., as recommended by the Senatus.

ST. ANDREWS AMBULANCE ASSOCIATION.

Last Thursday evening the members of this Association, assisted by the Queen's Rifle Volunteer Brigade and the Volunteer Medical Staff Corps, gave a demonstration in the Waverley Market before several thousand spectators. The Chairman (Lord Provost Boyd) gave some most interesting statistics. During the last year, 700 new pupils belonging to all the different trades and occupations entailing danger had completed their annual training. Many ladies have also received instruction in ambulance work. The total number last year was 970. This year the ambulance waggon has been out 244 times, whilst last year it had been requisitioned in only 142 cases. Accidents such as are most frequently met with in civil life were dealt with, and the manner in which to treat certain emergency cases was most admirably demonstrated. So great was the interest excited that the barricades were broken down by the enthusiastic crowd, and it was thought advisable not to go on with the second part of the programme, which consisted of military ambulance work.

THE CHRISTMAS VACATION.

The University and Extra-mural Medical classes will rise for the Christmas vacation on Friday, Dec. 21st, to meet again on Jan. 7th, 1889.

Edinburgh, Dec. 18th.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

THE revised scheme of examination for the Fellowship of the College will come into operation on Jan. 1st, 1889, and will be obligatory upon all candidates whose applications to be admitted to examination are lodged after that date. There will be two grades of examination, one for licentiates or graduates in surgery of less than ten years' standing, and the other for licentiates or graduates of more than ten years. The Fellowship of the College is accepted by the Royal College of Surgeons of England for admission of Fellows *ad eundem*, and without further examination to the Fellowship of that College; it is also accepted by the Army Medical Department as an equivalent substitute for the examination required to be passed by surgeons of the Army Medical Staff previously to promotion to higher rank.

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Dublin, Dec. 18th.

MANCHESTER.

(From our own Correspondent.)

MANCHESTER DEATH-RATE.

PUBLIC attention still continues to be called to the excessively high death-rate of the city, the Sanitary Association taking an active part in the agitation. At the first of the public conferences, held a fortnight ago in Ancoats, in addition to the leaders of the movement, a large proportion of the working classes were present in the audience. Dr. Ransome opened the discussion, and laid stress upon the unhealthy condition of large numbers of the dwellings of our poor, and the impure state of the atmosphere around them. The corporate authorities came in for severe criticism at the hands of most of the speakers, though Mr. Alderman W. Smith showed that the corporation was beginning to be aroused, and that the Unhealthy Dwellings Committee were making headway, if slowly, in the herculean task that lay before them. They have lately taken a practical step, which it is hoped may bear fruit, by inviting the owners of old cottage property in the worst districts of the city to come forward and offer such property to the corporation at a reasonable price. The second conference will be held to-morrow in another part of the city, when the special subject for discussion will be the smoke nuisance; this will be opened by Mr. Herbert Fletcher of Bolton, who is himself the owner of large works, and who has done so much to demonstrate beyond dispute the possibility of works and factories being carried on without producing any nuisance by smoke from boiler fires &c. On several occasions deputations have visited his works to have ocular demonstration of this fact, and about ten days ago a large party, organised by the Manchester and Salford Noxious Vapours Abatement Association, paid them a visit with this object in view. The time would appear to have now arrived when some more stringent measures should be enforced to purify the murky atmosphere of our manufacturing towns.

OWENS COLLEGE.

On Saturday night the annual *soirée* of the College Union was most successfully given. For many years this pleasant reunion of past and present students and their friends has been exceedingly popular, but owing to the favourable conditions under which Saturday's gathering took place this must be counted the most successful. For the first time, the whole of the new buildings were at the disposal of the committee, and the various museums and galleries form delightful promenades on occasions such as this. Science in all its branches, literature, and music were all laid under contribution for the amusement as well as the instruction of the visitors, and the secretaries are to be congratulated upon the success attending their labours. The medical students' dinner was held at the Grand Hotel, under the presidency of Mr. Thomas Jones, and lacked nothing either in numbers or conviviality.

SMALL-POX.

Dr. Page's report to the Local Government Board upon the outbreak of small-pox which occurred here in the summer at an industrial school throws but little additional light upon it. The origin is somewhat obscure, but there appears to be but little doubt that it was imported by a child from York, though the authorities of the latter place were apparently free from blame. At present Manchester is free from small-pox, but in the neighbouring borough of Salford there exists what almost amounts to an epidemic of typhoid fever, nearly 100 cases a month having been reported since September, with a corresponding ratio of deaths.

THE ASSIZES.

At the recent assizes a policeman was put upon his trial for having caused the death of a man whom he had arrested, and towards whom he appears to have used an excessive amount of violence. After being locked up one night in the police cells, the prisoner was liberated without anything very serious being noticed; but after a few hours symptoms of cerebral hæmorrhage came on. He was removed to the infirmary, and there died. At the trial, no less than ten medical men were called to give evidence for and against the accused, five of whom were of opinion that the hæmorrhage was due to disease, whilst the others were equally convinced that it was the result of the violence to which the deceased man had been subjected. Owing to this conflict of opinion, the prisoner escaped with eighteen months' hard labour.

PERILS OF FOOTBALL.

The football season has, as usual, brought with it a crop of casualties of a more or less serious nature. Mr. Southam has recently published an account of hæmorrhages into the tissues of the scalp and ear caused by rough play. On Wednesday last, a death took place in the infirmary of a youth from injuries received in the football field. The popularity of the game in the north of England at least remains undiminished, but some steps ought to be taken by the leaders and supporters of it to diminish the risks which attend it as now carried on.

December 18th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE HEALTH OF CARLISLE.

MR. MCKIE, the city surveyor of Carlisle, has prepared a report for the health committee and council relative to a scheme for sewer extension in the city. Mr. McKie's report contains some interesting vital statistics. He remarks that the increase in the population during the last third of a century has been 48½ per cent., or an average yearly increase of 1½ per cent. In 1855 there was one inhabitant to 49½ square yards of building and open space; at the present time there is one inhabitant to 70½ square yards of buildings and open space; so that the inhabitants of the city enjoy 42½ per cent. more of open area and buildings than in 1855. The inhabitants of the new part of the city built since 1855 enjoy an average 114½ square yards of buildings and open space, being 131½ per cent. more than the city enjoyed in 1855. The average death-rate before the city was sewered was about 28 per 1000, and it is now about 20 per 1000. Mr. McKie says that before the sewers were made the ground water in the winter months was almost the same level as the surface, and it was noticed that almost all the furrows in the agricultural land through which the main sewers passed in 1854-5 had water standing in them, but now the level of the ground water varies from 6 ft. to 10 ft. below the surface of the ground, which must have considerably decreased the humidity of the atmosphere. A considerable part of these lands is now built up, and forms important residential parts of the city.

WORKINGTON AND ITS SANITARY CONDITION.

Judged by the statements made at a public meeting last week, the sanitary condition of Workington is not satisfactory. Most complaints are heard as to the Clay Flatt district, and it is stated that there are at present six cases of typhoid fever in the town. One of the speakers said that the district, or at least some of its streets, might be described in two words, "damp and dirty." It appears it is now nine months since the medical officer of health had called the attention of the local board to the insanitary conditions which existed, and urged the board to take prompt action to remedy the evils.

WINDFALLS FOR WORKHOUSE INMATES.

At the last meeting of the Weardale guardians, Stanhope, Dr. Livingstone, the chairman, announced that he had just opened a letter addressed to himself, as chairman, and enclosing one £10 Bank of England note and two notes of £5, with a request from the anonymous donor that it might be expended on the regalement of the workhouse inmates during the Christmas season.

The late Miss Bell, of Quarry-hill, Cumberland, has left £100 to the Cumberland Infirmary, Carlisle, and £100 each to the Silloth Convalescent Institution and the Bell Memorial Hall, at Bolton-gate.

Newcastle-on-Tyne, Dec. 17th.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination in their respective districts:—Dr. Farrar, of the fourth district of North Welchford Union (second time); Mr. W. J. Merlin, of Sutton, Isle of Ely (fifth time).

EDINBURGH.

(From our own Correspondent.)

THE ROYAL SOCIETY OF EDINBURGH.

A SOMEWHAT interesting discussion on the etiology of cholera was initiated at the Royal Society last night, when Dr. Woodhead communicated a paper by Neil Macleod, M.D., and Waler J. Milles, F.R.C.S. Eng., both of Shanghai: "On an Inquiry into the Causation of Asiatic Cholera." The investigators began by pointing out that they had been led to the conclusion that Koch was, at the time they commenced their experiments, almost the only worker in the bacteriological field of whom it could be said that he had not published anything subsequently upset, and that consequently special attention was directed at once to the comma bacillus. The results of a number of most careful experiments were detailed, as a result of which they join issue with Klein and Gibbes and with the Spanish Cholera Commission, and arrive at the following conclusions. 1. The comma bacillus of Koch is invariably present, and associated with certain changes, in the small intestine, in cases of Asiatic cholera. 2. There is no evidence to show that it is a normal inhabitant of the human alimentary canal, and therefore no proof for the assertion that it is a result of the disease. 3. The means used to introduce the comma bacillus into, and those used to lessen the peristalsis of, the small intestine of the guinea-pig, cannot be regarded as causing appearances like those of Asiatic cholera, or as causing the death of the animal, far less a mortality of over 60 per cent. 4. Pure cultivations of the comma bacillus, introduced into the stomach under the precautions described, are pathogenic to the guinea-pig. 5. Injected with similar precautions, the contents of the ileum from those animals killed by injections of pure cultivations of the bacillus act in the same manner as pure cultivations of that organism. 6. The organism multiplies in the small intestine of the animal, and there are associated therewith changes similar to those in man in Asiatic cholera. 7. As there are conditions which favour the passage alive of the bacillus through the stomach of the guinea-pig, and also conditions which favour its multiplication in the small intestine of that animal, so in man, as there cannot be a doubt that the organism finds conditions favourable to its multiplication in his small intestine, it must have found conditions favourable to its entrance alive through, in all probability, the mouth and stomach. 8. There is strong evidence, therefore, for regarding the comma bacillus of Koch as the cause of Asiatic cholera.

EDINBURGH UNIVERSITY COURT.

At the meeting of the Edinburgh University Court held yesterday, the committee on the class returns of the University professors and the recognised medical lecturers for 1887-88 reported that they called for no special remarks. The Court decided that in the case of lecturers on science in Edinburgh recognition should be made of the individual lecturers as well as of institutions. Mr. Readman, D.Sc., was recognised as a teacher of practical chemistry whose course of instruction should qualify for graduation in medicine in the University. It was decided to approve of the opening by the Professor of Engineering of a class on sanitary engineering in connexion with graduation in science in the department of Public Health, and the fee was fixed at £3 3s., as recommended by the Senatus.

ST. ANDREWS AMBULANCE ASSOCIATION.

Last Thursday evening the members of this Association, assisted by the Queen's Rifle Volunteer Brigade and the Volunteer Medical Staff Corps, gave a demonstration in the Waverley Market before several thousand spectators. The Chairman (Lord Provost Boyd) gave some most interesting statistics. During the last year, 700 new pupils belonging to all the different trades and occupations entailing danger had completed their annual training. Many ladies have also received instruction in ambulance work. The total number last year was 970. This year the ambulance waggon has been out 244 times, whilst last year it had been requisitioned in only 142 cases. Accidents such as are most frequently met with in civil life were dealt with, and the manner in which to treat certain emergency cases was most admirably demonstrated. So great was the interest excited that the barricades were broken down by the enthusiastic crowd, and it was thought advisable not to go on with the second part of the programme, which consisted of military ambulance work.

THE CHRISTMAS VACATION.

The University and Extra-mural Medical classes will rise for the Christmas vacation on Friday, Dec. 21st, to meet again on Jan. 7th, 1889.

Edinburgh, Dec. 18th.

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PARIS.

(From our own Correspondent.)

SEWAGE DISPOSAL.

THE much-vexed question concerning the disposal of the sewage of Paris has just passed the Chamber of Deputies, and, by a feeble majority, a project of law, authorising the city of Paris to divert the foul stream to a portion of the Forest of St. Germain, was voted. The report was drawn up by Dr. Cornil, who submitted it to the Senate on the 13th inst., and recommended its adoption pure and simple. The system of *tout à l'égout* has many opponents, as being liable to establish at the gates of Paris a permanent focus of epidemics. Among the most determined adversaries is M. Pasteur, who, on March 16th last, at a meeting of the Council of Hygiene, expressed himself in these terms: "We must by all the means in our power endeavour to destroy the germs of contagious maladies which decimate the Parisian population, or annihilate their baneful influence. It is proposed, not to convey the sewage to the sea, where it cannot do harm, but to accumulate it each year, more and more, on the plains situated at the gates of the great city, and these plains will be cultivated. If the plains were allowed to remain sterile, there would be no danger of bringing back the germs to Paris." M. Cornil thinks that the action of the sun will render the pathogenic microbes inoffensive. To this M. Roux observes, in the "Annales de l'Institut Pasteur," that "the germs of charbon are not destroyed by their being exposed to the sun; it is sufficient to withdraw them from an insolated medium where they cannot thrive, and to throw them into the same liquid which has not been exposed to the light, for them to be cultivated." M. Pasteur contends that the land in the neighbourhood of Paris would be unfit to furnish edible vegetables, and M. Cornil had himself written that "the hygienists should be careful in regard to vegetables and fruits which are eaten raw, such as salads and strawberries, these aliments being liable to carry with them into the digestive tube not only micro-organisms, but also the eggs and parasites of animals." At Berlin, where this mode of irrigation is in practice, the inhabitants will not even give to their domestic animals any fodder that has been in contact with the liquid. M. Pasteur remarks that the condemnation of the system may be found in M. Cornil's own report, in which he says that "the *tout à l'égout* is not that which is supposed to be the best. It is better not to empty into the sewers the dejections of patients affected with typhoid fever or cholera, or the sputa of phthisical subjects." M. Pasteur asks the Senate to adopt a closed culvert, conveying the fæcal dejections to a building, where they might be submitted to a temperature of 120°C., which temperature is fatal to the infectious germs; but they should not be mixed with the water destined to be dispersed over the land. Moreover, instead of pouring out from 12,000 to 15,000 cubic metres per year and per hectare, only 9000 should be employed, as this is the quantity strictly absorbable. Besides which, the surfaces of Gennevilliers and of St. Germain, which have been the fields of experiment for some five or six years, will soon become insufficient, and the city of Paris will be compelled, as the consequence of *tout à l'égout*, to adopt the *tout à la mer* as suggested by a critical writer on the subject, and, he adds, it would then be found that M. Pasteur was right. It may be interesting to give here some of the arguments in favour of the system of *tout à l'égout*. The late M. Durand-Claye, the well-known engineer, had, a short time before his death, made a communication to the Société Française Hygiène on the above subject. He greatly distinguished himself by his advocacy of the above system, and he complained that his projects, which were so much opposed in France, notwithstanding that their utility was daily becoming more evident, met in foreign countries with more favour. "It is five or six years ago that the Prussian engineers came to Paris, studied our installation and our procedures, and made themselves acquainted with the advantages; and eighteen months afterwards, Berlin was, on our plans, endowed with a vast field of purification, whence the sewage escaped clear and limpid, after having fertilised the soil; and here I am still struggling to have my projects carried into effect." The *Journal d'Hygiène* contains a note of Dr. Proust on the plains of Berlin. On the occasion of the discussion in Parliament of the project of law on the land at Achères (one of the places for experiment), Dr. Proust related what he had seen on a visit to Berlin. "The impression which one feels when he passes over the fields of purification of the city of Berlin cannot be more favourable in a hygienic point of view." After having recalled that the engineers charged with the sanitation of Berlin, before deciding on their programme, came to Paris to ascertain the first results obtained at Gennevilliers, Dr. Proust concluded his note in the following terms: "While we are still discussing these results, and in our Parliament a violent struggle has been going on for several years for permission to extend the same results to some hundred hectares more, the city of Berlin has already irrigated 3182 hectares and nearly terminated its work of sanitation, with the greatest benefit to the health of their co-citizens." Dr. Bertillon, the Director of Statistics at the Prefecture of the Seine, writes, with reference to Gennevilliers, that "the sanitary condition of the localities watered by sewage has not been for three years either notably better or worse than that of the other localities of the north and west of Paris. Epidemic maladies, notably, have not been more prevalent, and the employment of sewage as manure does not exercise on the public health any injurious influence whatever."

PARIS ACADEMY OF MEDICINE.

At the annual public meeting of the Paris Academy of Medicine, on Dec. 11th, M. Hérard presiding, the following awards were made of prizes for the year 1888:—*Prix de l'Académie* (1000 fr.): Not given, but an award made of 400 fr. to M. Sarda (of Vincennes), 400 fr. to M. Friot (Nancy), and 200 fr. to M. Jacquemart (Paris). *Prix Amussat* (900 fr): Not awarded, but M. Rodet (Paris) received honourable mention (with 500 fr.). *Prix Barbier* (2000 fr.): Not awarded, but M. F. Roux (Paris) received 1000 fr., and M. E. Goubert (Paris) 500 frs. *Prix Buignet* (1500 fr.) MM. Hardy and Calmels (Paris). *Prix Capuron* (1000 fr.): M. Duhoureau (Cauterets). *Prix Civrieux* (800 fr.): M. Descourtis (Paris). *Prix Daudet* (1000 fr.): Divided between M. H. Feulard (Paris), 600 fr., and MM. Marfan and Toupet (Paris), 400 fr. *Prix Desportes* (1300 fr.): M. Dupuy (Mauriac), 800 fr.; M. Bottey (Paris), 500 fr.; honourable mention, M. Duroziez (Paris). *Prix Falret* (1500 fr.): M. Raoul Reynier (interne of Paris hospitals), 1000 fr.; honourable mention with 250 fr. to MM. Morel Lavallée and Bélières (Paris); honourable mention with 250 fr. to M. Mabille. *Concours Vulfranc-Gerdy:* Award of 500 fr. to MM. Boutarel and Lamarque. *Prix Ernest Godard* (1000 fr.): MM. Lécorché and Talamon (Paris); honourable mention, MM. Bertrand and Fontan (Toulon), Kelsch and Vaillard (Paris), Marfan (Paris), Pichon (Paris). *Prix de l'Hygiène de l'Enfance:* An award of 400 fr. to M. Dauchez (Paris). *Prix Itard* (2700 fr.): A prize of 1700 fr. to M. Louis Jullien (Paris); honourable mention with 500 fr. to M. Duflocq (Paris); honourable mention with 500 fr. to MM. Saint-Germain and Valude (Paris). *Prix Laval* (1000 fr.): M. Foveau (stud. med.). *Prix Meynot* (2600 fr.): A prize of 2000 fr. to M. Châtellier (Paris); and one of 600 fr. to M. Ricard (Paris). *Prix A. Monbinne* (1500 fr.): M. Leloir (Lille); very honourable mention to MM. Fillean and Léon Petit (Paris); honourable mention, MM. Bournet (Amplepuis) and Bordas (Paris). *Prix Orfila* (4000 fr.): M. Maurice Kaufmann (Alfort); honourable mention, M. Barbancey (Montpon sur l'Isle). *Prix Oulmont* (1000 fr.): M. Girode (Paris). *Prix Pourat* (900 fr.): Divided between M. Gley (Paris), 600 fr.; and M. Albert René (Nancy), 300 fr. *Prix Saint-Paul* (25,000 fr.): Three "prix d'encouragement" of 1000 fr. each awarded to M. Cousot (Brussels), Renou (Saumur), Thoinot (Paris); honourable mention, MM. Cozzolino (Naples), E. Gaucher (Paris), Lancry (Dunkerque), Roulin (Paris), and Robert William Parker (London). *Prix Hanski* (1800 fr.): A prize of 1200 fr. to M. Arnold Netter (Paris), and one of 600 fr. to M. Thoinot (Paris). *Prix Vernois* (800 fr.): MM. L. Villain, Bascou, Lafourcade, Moulé, and Merame.

Paris, Dec. 18th.

PRESENTATION.—At a conversazione held in the University College, Dundee, on the 12th inst., on the occasion of the students taking a formal leave of Dr. Carnelley on his removing to Aberdeen, Dr. Andrew Thomson, as a past student in University College, presented Dr. and Mrs. Carnelley, as a token of respect and esteem of his students, with a silver tea and coffee service.

THE SERVICES.

Surgeon-General J. Sinclair, M.D., has succeeded Surgeon-General Hassard, C.B., as Principal Medical Officer in Ireland.

Deputy Surgeon-General E. M. Sinclair is about to retire from the Service, his health not permitting him to proceed in India.

Surgeon-General W. Marshall Webb will embark at the end of this month to take up the appointment of Principal Medical Officer in Bombay.

Surgeon-Major R. C. Eaton has been appointed Senior Medical Officer in West Africa.

Brigade Surgeon J. A. Scott has been appointed Sanitary Officer of the Aldershot Division.

Surgeon H. S. M'Gill, Assistant Professor of Pathology at the Army Medical School, Netley, has been placed under orders for service in India.

ARMY MEDICAL STAFF. — Deputy Surgeon-General Edward Malcolm Sinclair, M.D., is granted retired pay (dated Dec. 19th, 1888).

BOMBAY MEDICAL STAFF CORPS. — The Queen has approved of the retirement of the following:—Brigade Surgeon James McDonald Houston, M.D., Madras Medical Establishment (dated Oct. 12th, 1888), and Surgeon-Major William Coleridge Kiernander, Bombay Medical Establishment (dated Dec. 15th, 1888).

ADMIRALTY. — The following appointments have been made: — Deputy Inspector-General Alexander Turnbull, D.M., to the Admiralty, for temporary service (dated Jan. 1st, 1889); Fleet Surgeon Edward Meade to the *Asia*, for charge of medical duties of Portsmouth Dockyard, of *Asia*, and ships of Steam Reserve; Fleet Surgeon Thomas Bolster to the *Nankin*, for charge of medical duties of Pembroke Dockyard, of *Nankin*, and ships of Steam Reserve; Fleet Surgeon Wm. B. Fletcher to the *Duncan*, for charge of medical duties of Sheerness Yard, Naval Barracks, *Duncan*, and ships of Steam Reserve; Fleet Surgeon H. S. Lauder to the *Indus*, for charge of medical duties of Devonport and Keyham Yards, *Indus*, and ships of Steam Reserve (all dated Dec. 17th, 1888); Surgeon Charles S. Woodwright to the *Asia*, for duty in Portsmouth Yard, &c. (dated Jan. 1st, 1889); Fleet Surgeon Richard S. P. Griffiths to the *Pembroke*, for charge of medical duties of Chatham Dockyard and *Pembroke*, and ships of the Steam Reserve; Fleet Surgeon Samuel Bamfield to the *Serapis;* Surgeon George Wilson, to the *Pembroke;* Surgeon James M. France to the *Raleigh*, additional; and Surgeon Paul W. Fraser to the *Shannon* (dated Dec. 15th, 1888).

VOLUNTEER CORPS.—*Artillery:* 1st Volunteer (Sussex) Brigade, Cinque Ports Division, Royal Artillery: Acting Surgeon H. A. Hodson resigns his appointment (dated Dec. 15th, 1888).—*Rifle:* 1st Volunteer Battalion, the Royal Fusiliers (City of London Regiment): Surgeon R. P. Frazer resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the Battalion, on his retirement (dated Dec. 15th, 1888).

Medical News.

UNIVERSITY OF LONDON.—The following candidates have passed the recent M.D. Examination:—

Alexander, Sidney Robert, Guy's Hospital.
Bailey, Chas. Frederic, St. Bartholomew's Hospital.
Barendt, F. H., Roy. Infirm. and Univ. College, Liverpool.
Blore, Isaac, Owens College.
*Brown, Herbert Henry, B.S., University College.
Deanesly, Edward, B.Sc., University College.
De Chazal, Edmond Lucien, University College.
Dobson, Leonard C. Talbot, St. Bartholomew's Hospital.
Elliott, John, B.S., B.Sc., St. Bartholomew's Hospital.
Evans, W. A., Owens Coll. and Manchester Royal Infirmary.
Flemming, Percy, B.S., University College.
*Gardner, Henry Willoughby, St. Bartholomew's Hospital.
Goodall, Edwin, B.S., Guy's Hospital.
Holder, Sydney Ernest, B.S., University College.
Jecks, Cyril William, University College.
Jones, Samuel Cromwell, B.S., University College.
*Kauffmann, O. J., Owens, Manch. Roy. Infirm. and St. Mary's.
Kelsall, Henry Truman, B.S., London Hospital.
Permewan, William, University College.
Rennie, G. E., B.A.Syd., Gold Medal, University College.
Rivers, Wm. Halse Rivers, St. Bartholomew's Hospital.
Routh, Charles Frederic, B.S., Guy's Hospital.
Rushworth, Frank, St. Bartholomew's Hospital.
Scharlieb, Mary Ann D., B.S., Lond. Sch. of Med. for Women
Sisley, Richard, St. George's Hospital.
Slater, Druce John, St. Bartholomew's Hospital.
Smith, John Anderson, St. Bartholomew's Hospital.
Stedman, Frederic O., B.S., Charing-cross Hospital.
Tait, Edward Sabine, St. Bartholomew's Hospital.
Taylor, Frederick Howard, B.S., London Hospital.
Thomson, St. Clair, King's College.
Toogood, Frederick Sherman, University College.
Tunstall, John Ogle, University College.
Vincent, Herbert Edmund, B.S., Guy's Hospital.
Voelcker, Arthur Francis, B.S., University College.
Waugh, Henry Dunn, B.A., B.Sc., University College.
Wethered, Frank Joseph, London Hospital.
Wheaton, Samuel Walton, St. Thomas's Hospital.
Williams, Reginald Muzio, St. Thomas's Hospital,
Wynter, W. E., B.S., Middlesex and St. Bartholomew's Hosps.
Young, Chas. Wheeler Forrest, St. Bartholomew's Hospital.

* Obtained the number of marks qualifying for the gold medal.

The following has passed the recent examination in subjects relating to Public Health:—

Brock, Jas. H. Ernest, M.D., B.S., University College.

UNIVERSITY OF CAMBRIDGE. — The following gentleman has been examined and approved for the degree of Bachelor of Surgery:—

Niven, M. A., Queen's.

A NEW INFIRMARY FOR COVENTRY.—The Coventry Board of Guardians are contemplating erecting a new infirmary to accommodate 145 patients.

AN EXAMPLE WORTHY OF IMITATION.—Recently, says an evening contemporary, the Empress of Japan paid a visit to the hospital at Neno in course of erection by the Red Cross Society, and was moved to contribute 80,000 yen towards the funds of the Society. This represents in English money the sum of £16,000.

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.—On the 17th inst. the Empress Frederick visited the above hospital. A bouquet of flowers was presented to Her Majesty by a little child held in the arms of a nurse. The Empress visited each ward, and after speaking a few sympathetic words to the little sufferers, expressed the satisfaction her visit had afforded her.

LITERARY INTELLIGENCE.—The series of clinical manuals published by Messrs. Cassell are about to be published in Spanish, being translated by Dr. D. Alfredo Opisso y Piñas, of Barcelona.—Dr. Leopold Wittelshöfer is about to retire, on account of his health, from the editorship of the *Wiener Medicinische Wochenschrift*. He will be succeeded by Dr. Heinrich Adler.

ASSOCIATION OF BRUSSELS MEDICAL GRADUATES.—A meeting of the Association was held at the Holborn Restaurant on Dec. 13th, Dr. H. Lewis, of Folkestone, the president for this year, occupying the chair. Dr. Barraclough, of Dulwich, read a paper on the subject of diphtheria. Afterwards the members dined together. The gathering was, we are informed, the largest that had yet assembled under the auspices of this Association.

WE understand that the tenth annual dinner of the students (past and present) of the medical department of the Yorkshire College will be held at the Queen's Hotel, Leeds, on Friday, January 18th, 1889, under the presidency of Dr. C. J. Cullingworth, obstetric physician to St. Thomas's Hospital. The hon. secretaries (Messrs. C. Forsyth and E. M. Nelson) will be pleased if old Leeds students will endeavour to be present and assist in making the occasion a success.

BURIAL REFORM.—The Duke of Westminster last week introduced to the Home Secretary a large and influential deputation under the auspices of the Church of England Funeral Reform Association, asking for an inquiry into the condition of cemeteries and modes of burial, with a view to the consolidation and amendment of the Burial Laws, and the abolition of the power of selling the right of burial in perpetuity. The Rev. F. Lawrence, hon. sec., pointed out that the question was one which pre-eminently concerned the poor, and that it was in a high degree the duty of the Legislature to provide for the poor means of proper interment for their dead.—The Home Secretary replied that the subject should receive very careful consideration.

PROVINCIAL SUNDAY AND SATURDAY HOSPITAL COLLECTIONS.—The Wolverhampton Hospital Sunday collections this year have amounted to £636, of which £52 has been contributed to the Eye Infirmary, and the balance to the General Hospital. The Radcliffe Infirmary, Oxford, has received from the Hospital Sunday Fund £93 9*s.* 11*d.*

HOSPITAL FOR SICK CHILDREN, DERBYSHIRE.—The annual report, just issued, of this institution shows that the receipts on revenue account were £579 11*s.* 2*d.*, and the expenditure amounted to £588 15*s.* 8*d.* The erection of an isolation ward had been completed during the year, which, with other structural work, had cost £802 9*s.* 11*d.* Towards this sum, £694 5*s.* 6*d.* had been given or promised.

ARBROATH CONVALESCENT HOME.—The Directors of Arbroath Infirmary, to give effect to the recent gift of £1500 by Mr. Alexander Duncan, of Rhode Island, and his brother, Mr. John Duncan, of Parkhill, Arbroath, for building a Convalescent Home, have decided to purchase the property of Park Cottage, which comprises about four acres of land, and to erect the Home on that site, which is to be a constituent part of the infirmary establishment.

UNIVERSITY OF DURHAM.—At the final examinations for the degrees in Medicine and Surgery at the University of Durham, held during the week commencing Dec. 3rd, Alfred John Gregory, M.B., B.S., M.R.C.S., L.S.A., of the London Hospital, was awarded second-class honours, being the only candidate placed in the honours list. John Peere Williams-Freeman, M.D., M.B., M.R.C.S., L.S.A., was awarded the gold medal for the best essay presented during the year 1888 for the degree of Doctor in Medicine.

VICTORIA-PARK HOSPITAL ASSOCIATION. — The annual dinner took place in the Vestry Hall, Mile-end, on the 12th instant. Mr. Spencer Charrington, M.P., occupied the chair, and there was a large attendance of members of the association and others. The object of the institution is to assist the funds of the Victoria-ark Hospital, by the purchase of life governorships, of which twenty-three have now been acquired, and by which the funds of the hospital have been benefited about £100.

BUDLEIGH SALTERTON COTTAGE HOSPITAL.—On the 11th inst. an inaugural dinner took place at Budleigh Salterton to celebrate the opening of this hospital, and was attended by a large company. Dr. T. N. Brushfield presided. In proposing the toast of the evening, "Success to the Budleigh Salterton Cottage Hospital," the chairman remarked that he believed that a cottage hospital for the town was first mentioned in his own house. It was greatly needed. The scheme had been liberally supported, and everything promised it would be a great success. The hospital was a well-constructed building, erected on a most eligible site. Dr. Walker and Mr. Evans had generously undertaken its medical superintendence.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Dundee Royal Infirmary has lately received £1000 from Mr. John Sharp, merchant of that city, for the endowment fund of the Convalescent Home, and from the Dundee Trades Council £500, being a portion of the surplus of the Industrial Exhibition held last year in Dundee.—The sum of £147 4*s.* 9*d.* has been handed over to the Sussex County Hospital, as the result of the Fancy Ball, held at the Pavilion, Brighton, on the 6th instant.—The late Mr. John Robertson, of Lauchope, near Holytown, has bequeathed £200 to the Royal Infirmary, Glasgow, and £100 each to the Glasgow Eye Infirmary, Lock Hospital, and Western Infirmary.—The Royal Infirmary, Aberdeen, has received a donation of £50 from the employés of the Great North of Scotland Railway.—The managers of the Broadford Works Charitable Fund, Aberdeen, have forwarded to the Royal Infirmary £35, to the Dispensary £5, and to the Sick Children's Hospital £2 10*s.*, total £50.

ROYAL HOSPITAL FOR INCURABLES, PUTNEY.—The thirty-fourth annual meeting of the subscribers was held at the Cannon-street Hotel last week. The report stated that, whilst the ordinary income of the past year was about the average, the legacies were again considerably above the average. The election rate last year was raised in honour of the Queen's Jubilee, and, in consideration of improved resources, from fifty to seventy. The donations received at the annual dinner held in May amounted to £4202, and the annual sale of inmates' work held in June realised £373 1*s.* 11*d.* The seaside house at St. Leonards was satisfactorily realising the hopes of the board. The out-door pension list reached the highest point in June, showing a total of 534, or an annual rate of £10,680.

MEDICAL NOTES IN PARLIAMENT.

Public Health Acts Amendment (Buildings in Streets) Bill.

IN the House of Lords on the 18th inst., this Bill was read a third time and passed.

Infant Life Protection.

In the House of Commons on the 14th inst., Mr. Stuart Wortley, in reply to Mr. C. S. Kenny, stated that the attention of the Secretary of State had been called to the practice of baby-farming; that he had now under consideration proposals for remedying defects in the existing law; and that he had invited the local authorities of certain large towns of England, Scotland, and of Dublin to favour him with suggestions on the subject.

Carbolic Acid Poisoning.

In reference to the question whether, in view of the large number of deaths from the poison, carbolic acid ought to be scheduled among poisons under the Pharmacy Act, Mr. Stuart Wortley, in reply to Mr. Picton, said the resolution passed by the Pharmaceutical Society had been submitted to the Privy Council for approval, and was being considered; but, he said, skilled opinion was not unanimously in favour of the view expressed by the Society, and the subject was surrounded with difficulty.

Insuring Infant Lives.

Mr. W. H. Smith said, in answer to Mr. Baumann, that this matter was receiving the serious consideration of the Government.

Universities (Scotland) Bill.

On the 15th inst., in reply to several members asking for a definite answer in reference to the probable fate of this measure, the Chancellor of the Exchequer stated that if the Bill were abandoned this session, it was the intention of the Government to reintroduce and proceed with it at the earliest possible moment in the next session. The Bill, however, was withdrawn on the 18th.

Medical Officers of Prisons.

In Supply on the Scotch Estimates, on the vote to complete the sum of £109,538 for prisons, Mr. J. A. Campbell hoped the Government would take into consideration the grievances of medical officers of prisons, and Dr. Farquharson called attention to the unsatisfactory arrangements prevailing in Barlinnie Prison, and suggested the appointment of a committee to consider the whole question of prison management. To this the Lord Advocate objected that to appoint such a committee would be to discredit a system which had been barely started. At the discussion of the Irish estimates on the 18th, a long conversation took place with reference to the vacancy in the post of medical officer in Belfast Gaol, in the course of which the method of treating prisoners under the Crimes Act was brought under notice.

Sanitary Condition of Cradley.

On the 17th inst., in answer to a question by Sir L. Playfair as to the powers of the Local Government Board to enforce statutory obligations for securing the health of communities when it was endangered by the ignorance or apathy of the local authorities, Mr. Ritchie said the Board had always held that Section 299 of the Public Health Act contemplates that complaint of inactivity of local authorities should be from an independent source, and the Board, if satisfied after due inquiry that the authority had been guilty of alleged default, might make an order limiting a time for the performance of their duty, and in case of disobedience the order might be enforced by *mandamus*.

M. Pasteur's Treatment of Hydrophobia.

Sir H. Roscoe inquired if the Government would consider the propriety of affording, as other Governments had done, some pecuniary assistance to the Pasteur Institute, where English patients were treated free of charge.—The Chancellor of the Exchequer replied that before any steps were taken in the direction suggested, it would be necessary to ascertain the circumstances of those treated, as if they were persons of adequate means it would be their duty to contribute to the institute from which they had derived benefit.

Medical Officers on Foreign Service.

On the 18th inst., Colonel Nolan asked the Secretary of State for War whether, under the recent regulations extending the time of foreign service for medical officers, those men who were serving abroad would come under those altered rules; and whether those ordered abroad before April 1st, 1889, would come under such rules.—Mr. E. Stanhope said that all medical officers of the executive grades who may be serving abroad on April 1st next, or who may be subsequently ordered abroad, will come under the new rules as to foreign service, subject to possible modifications in regard to officers required to accompany troops returning home.

Enteric Fever in Gibraltar.

Mr. Murdoch asked the Secretary of State for War whether he would order an inquiry to be made into the cause of the number of fatal cases of enteric fever at Gibraltar.—Mr. E. Stanhope said steps were being taken to ascertain the cause; but the difficulty of the case was increased by the presence of a crowded civil population under somewhat unfavourable sanitary conditions.

The Queen's Colleges.

On the 19th inst., on the vote for the Queen's Colleges, Ireland, Mr. Clancy called attention to the hardship suffered by Dr. Pye and Dr. Redfern, whose incomes had been diminished by the establishment of the Royal University.—The Solicitor-General said the Government would inquire into the cases, and do their best to remedy any injustice inflicted by the change referred to.

Labour in the Docks.

On Thursday, the 20th inst., Mr. Pickersgill asked the President of the Board of Trade, whether his attention had been called to the report, published in THE LANCET, of THE LANCET Special Commission on the dangers attending Labour in the Docks, and especially to the following passages:—"Men are ruptured, their spines injured, their bones broken, and their skulls fractured, so as to get ships loaded and unloaded a little quicker and a little cheaper"; and whether he will direct that inquiry shall be made forthwith into the truth of these statements.—Sir Michael Hicks-Beach: The report referred to by the hon. member appears to have been circulated by some committee outside this House, but I have no means of ascertaining whether or not it is accurate. I also doubt whether any inquiry into it is necessary pending the report of the Lords' Committee on Sweating, but I will consider whether it is possible to have any legislation on it in connexion with the laws relating to our merchant shipping.

Recognition of Sanitary Services.

Sir Guyer Hunter asked the First Lord of the Treasury whether any acceptance will be accorded to the memorial of the Congress of Sanitary Inspectors in June last, submitting the expediency of the adoption of one presented from the late Earl of Shaftesbury, K.G., and the heads of sanitary institutions, praying that the like recognition may be given to distinguished sanitary service in saving life that is given to distinguished naval and military service.—The Chancellor of the Exchequer: I am not acquainted with the nature of the memorial in question, but if the hon. member will give me or the First Lord of the Treasury some further particulars we will inquire into the matter.

Army Medical Officers.

Dr. Tanner asked the Secretary of State for War whether he could state how many retired army medical officers are now employed, and what saving on the pension list is effected thereby; whether, in order still further to reduce the charges for non-effective services, any increased number will be employed; and whether the practice will be extended to other departments.—Mr. Stanhope: Fifty-nine retired medical officers are now employed. The saving on the pension list is rather nominal than real, as the officer still draws the full amount of his retired pay. The real saving is on the effective list, where the payment is only £150 per year, instead of the full pay and allowances of an officer on the active list. This for fifty-nine officers cannot be less than £8100 a year. In the future there will be a non-effective saving consequent on the smaller number of officers passing through the effective list. An increase in the number of these appointments in the medical and other departments is about to be carried out.

The Irish Pharmacy Bill.

This measure has, we are informed, been dropped for this session. The Irish members had practically (after many consultations) come to an agreement which would have allowed it to pass into law, but at the last moment a Conservative member started a new proposal fatal to the principle of the Bill, which was consequently wrecked.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BERNARD, C. J., L.A.H. Dub., has been reappointed Medical Officer of Skegness.

BROCK, ERNEST H., M.R.C.S., L.R.C.P., M.B., B.S. Lond., has been appointed Junior House Surgeon to the North-Eastern Hospital for Children, vice Mr. Blake.

GUTHRIE, LEONARD GEORGE, M.A., M.B., B.S. Magd. Coll., Oxon., M.R.C.S., has been appointed Physician to Out-patients at the Hospital for Epilepsy and Paralysis, Regent's-park, London, N.W.

HERRINGHAM, W. P., M.D., M.R.C.P., has been appointed Honorary Physician to Out-patients at the Paddington-green Children's Hospital, W., vice G. L. Laycock, resigned.

JOHNSTON, R., F.R.C.S., has been appointed Medical Officer of Health for the Wisbech Port.

JONES, H. T., L.K.Q.C.P., L.M. Irel., M.R.C.S., has been reappointed Medical Officer of the Hucknall-Torkard Union District.

KEOUGH, T. H., L.R.C.S. Irel., has been appointed Medical Officer of the Dogdyke District of Boston Union

KIDD, H. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health, Bromsgrove Town and Country Union Districts, vice Carey.

LESLIE, W. MURRAY, M.B. Edin. and C.M., has been appointed Medical Officer to the Poplar Union, vice Dr. M'Donald, M.P., resigned.

MACKRELL, ALFRED S., M.R.C.S., L.D.S. Eng., has been appointed Dental Surgeon to St. Bartholomew's Hospital.

NEWSHOLME, ARTHUR, M.D. Lond., has been appointed Medical Officer to the Borough Hospital, Brighton, at £150 per annum.

POWELL, J. J., M.R.C.S., L.S.A. Lond., L.R.C.P. Lond., has been appointed Medical Officer and Public Vaccinator to the Second District of the Chertsey Union, vice G. J. Sealy, M.D., resigned.

RAW, NATHAN, M.B., B.S. (Dunelm), Assistant Medical Officer to the Kent County Asylum, Maidstone, has been appointed Assistant Medical Officer to the Portsmouth Borough Asylum.

READ, HENRY G., M.R.C.S., L.R.C.P., L.S.A. Lond., L.D.S. Eng., has been appointed Assistant Dental Surgeon to St. Bartholomew's Hospital.

SPOKES, SIDNEY, M.R.C.S., L.D.S., has been appointed Lecturer on Dental Anatomy and Physiology to the National Dental College.

STATHAM, R. W., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer to the Eighth District of the Axbridge Union.

WIGLESWORTH, JOSEPH, M.D. Lond., M.R.C.P., has been appointed Medical Superintendent of the Rainhill County Asylum, vice T. L. Rogers, M.D., M.R.C.P., resigned.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, N.E.—Resident Clinical Assistant.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House Surgeon. Board and washing provided. No salary, but a bonus of £10 is given.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Physician to Out-patients.—Registrar and Chloroformist. Non-resident. Salary £30 per annum. Additional £20 if the post is held for twelve months.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon. No salary, but residence, board, and washing will be provided.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary £80 per annum, with apartments and board.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY.—Honorary Surgeonship to the Rupert-road Branch.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Resident Medical Officer as House Surgeon. Salary £50 per annum with board and residence in the hospital.

LEICESTER UNITED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, High cross-street, Leicester.—Non-resident Medical Officer. Salary £100 per annum, with unfurnished house, cab, and other fees.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum with apartments, board, and attendance.

NOTTINGHAM GENERAL DISPENSARY.—Senior Resident Surgeon. Salary £180 per annum, with furnished apartments in the institution, and coal and gas provided.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, S.E.—Resident Medical Officer. Salary £70 per annum, with board, residence, and laundry.

SALFORD ROYAL HOSPITAL.—Honorary Medical Officer for the Pendleton Branch Dispensary.

Births, Marriages, and Deaths.

BIRTHS.

ARLIDGE.—On Advent Sunday, the 2nd inst., at Bridge House, Haworth, the wife of J. F. Arlidge, L.R.C.P., L.R.C.S. Edin., of a daughter.

CASLEY.—On the 15th inst., at The Old House, Ipswich, the wife of R. Kennedy Casley, M.D., of a daughter.

GILKES.—On the 12th inst., at Linden House, Walthamstow, the wife of Norton Gilbert Gilkes, M.R.C.S., L.S.A. Lond., of a son, Eric Norton, who survived his birth only two hours.

MARRIAGES.

EXLEY—GOZNEY.—On the 17th inst., at the Parish Church, Hunslet, by the Rev. J. Thompson, Vicar, John Exley, M.R.C.S. Eng., Grove House, New Wortley, Leeds, eldest son of Henry Exley, Hunslet, to Sarah Hannah, second daughter of James Gozney, Hunslet.

MARTIN—PHILLIPS.—On the 18th inst., Sidney Harris Cox Martin, M.D., M.R.C.P., second son of John Ewers Martin, LL.D., of Jamaica, to Frances, only daughter of Mrs. Barnett Phillips, of 18, York-terrace.

PEDLEY—BOWDAGE.—On the 19th Nov., at the pro-Cathedral, Rangoon, by the Rev. Dr. Marks, George Aston Pedley, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A. Lond., of Mandalay, Upper Burmah, son of George Pedley, of Railway Approach, London Bridge, and Camberwell, to Emily Sophia, daughter of Henry Bowdage, of Camberwell.

WALKER—CHEVES.—On the 12th inst., at St. John's Episcopal Church, Longside, James Hutchison Walker, M.A., M.D., Sandakau, British North Borneo, to Beatrice, elder daughter of Robt. Cheves, banker, Longside.

DEATHS.

BARLOW.—On the 16th inst., suddenly, at Archer's Lodge, Harpurhey, Manchester, William Henry Barlow, M.D., aged 51.

BLACKMAN.—On the 19th inst., from pleuro-pneumonia, Charles Thomas Blackman, M.R.C.S., of North Holme, Willesden-lane, in his 68th year.

HORAN.—On the 18th inst., at Bridge-street, Sunderland, John Horan, L.R.C.P. Edin., M.R.C.S.

MACLACHLAN.—On the 12th inst., at Milford, James Maclachlan, M.D. Glas., of Walsall.

NANKIVELL.—On the 12th inst., at Fernhurst, Sussex, John Hicks Nankivell, M.R.C.S., late of Penmellyn, S. Columb, Cornwall, aged 79.

REID.—On the 4th inst., at Samana Bay, West Indies, William Reid, M.D., aged 30.

WILSON.—On the 16th inst., at Paddock, Huddersfield, Emma, the beloved wife of David Wilson, M.D. (Friends will please accept of this the only intimation.)

WOOD.—On the 14th inst., at Lynch House, West Meon, Petersfield, Hants, John Edward Wood, M.R.C.S., aged 68.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 20th, 1888.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 a.m.
Dec. 14	30·28	S.E.	38	37	..	41	32	..	Foggy
,, 15	30·41	S.W.	34	33	..	41	32	..	Foggy
,, 16	30·50	S.W.	39	37	..	40	32	..	Overcast
,, 17	30·38	W.	37	36	..	38	35	..	Overcast
,, 18	30·22	S.W.	33	33	..	37	30	..	Foggy
,, 19	29·96	S.W.	47	46	..	49	32	..	Overcast
,, 20	29·68	S.W.	44	43	69	49	43	..	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE LITERATURE OF CEREBRO-SPINAL MENINGITIS.

J. C. R.—Donders, on graduating at Leyden on Oct. 13th, 1840, produced his "Dissertatio inauguralis sistens Observationes Anatomico-Pathologicas de Centro Nervoso." In this he describes a case of cerebro-spinal meningitis—a disease suspected rather than recognised at that time, and not fully appreciated in all its physiological and pathological significance till many years afterwards, when it became epidemic. According to his biographer, Moleschott, his thesis is singularly complete for its time of publication, and greatly to be commended for the post-mortem examination which preceded the author's conclusions regarding the disease. Its only defect was that of a microscopical analysis—natural enough when it is remembered that but a short time before (in 1837) Henle had brought himself into notice for his researches on the epithelium, while Johann von Müller's work on Tumours bears the date of 1838. Virchow was still a student, and the "Physiologie Pathologique" of Lebert did not appear till 1845, five years after Donders had produced his inaugural dissertation. And yet, says Moleschott, Donders' anatomical observations are so just, the physiological views so judicious and comprehensive, that this his first effort would even now confer honour on any journal of medicine that published it. The germs of its author's subsequent researches on the cerebral circulation are to be found in it, while the judgment with which he kept the facts separate from their physiological discussion might be followed with advantage by other labourers in the same field.

J. H. Williams, M.R.C.S., &c.—We regret we cannot assist our correspondent.

James Dogleish, M.B., C.M. is thanked for his letter.

ODDFELLOWS' CLUBS.—EXTRA CHARGES.

To the Editors of THE LANCET.

SIRS,—Will some of your readers who are surgeons to Oddfellows' clubs kindly state in your columns their scale of charges, if any, for fractures, dislocations, &c.? The reason of this appeal for information is that the club to which I have been medical officer for the last eight years, having always paid £2 2s. for each case of fracture or dislocation, now demur to pay, on the ground that the custom of paying such extra fees is unknown among other clubs of the M.U.O.F.

I am, Sirs, yours faithfully,

December, 1888. ENQUIRER.

G. H. H.—1. The evidence at our command does not afford ground for a definite reply.—2. There is a medical examining board in Cape Town unconnected with the University. Persons with British qualifications are not required to undergo examination.

"COVERING."

Junior.—We think not. It would be a somewhat strained application of the doctrine of covering, though our correspondent must hold himself aloof from all questionable uses and views of the galvanic treatment.

J. S.—We are obliged to our correspondent for arguing a point of undoubted difficulty. The very length of standing is an element in the question which has often been recognised in legislation. But we by no means wish to convey the impression that the public are to expect regular medical men to buttress any unqualified practitioner, even of twenty-five years' standing. If such men are entitled to consideration, it is at the hands of the examining bodies. It is not for private practitioners to give a licence to unqualified practice. All that we meant by our previous remark, that seems to have slightly perplexed our correspondent, is that the standing of the men and the practical recognition of them for so long a period by registered practitioners make it proper to give some special consideration to such cases, which we had hoped were not so numerous as our correspondent seems to think. They should at least have notification of the determination of regular practitioners to discontinue meeting them. Such notification should be made by the medical men collectively, who might well explain that, in view of the action of the Medical Council, they cannot co-operate with unqualified practitioners without risk to themselves.

IMPERFECT OIL LAMPS.

To the Editors of THE LANCET.

SIRS,—With reference to the article under this heading in your issue of Dec. 8th, will you permit me to point out that accidents with mineral oil lamps are more frequent now than formerly, and that legislation could easily and effectively suppress the danger by simply making it illegal to sell any lamp that is not constructed in accordance with a system that is proved by Government officials appointed for the purpose to be incapable of exploding under any conditions. A very simple test will suffice; pass into a lamp (under a determined pressure) that is partly filled with oil, and while burning, a gas of proved explosiveness; if the lamp will stand this test, it may be considered as safe. In the meantime, the public have the remedy in their own hands. Let anyone buying a lamp insist on having a guarantee from the vendor that it cannot explode; if this be refused, the lamp had best be left alone. There is no need to run any risk in using lamps, for absolutely safe lamps are to be had by all classes if they will only take the trouble to insist on such a guarantee.

I am, Sirs, your obedient servant,

Holborn-viaduct, E.C., Dec. 10th, 1888. D. C. DEFRIES.

Ethic.—C seems to have acted with perfect propriety. It was right to offer to act for A. But in the circumstances he could not refuse to take the case. He cannot be held responsible for the unfortunate impression produced on the patient or her husband by A's absence, or rather by the want of readiness of his partner or locum tenens to fulfil his engagement. We assume that he has told A all the particulars he gives to us.

Emigrant should apply at the office of the Crown Agent for the Colonies, Downing-st., S.W., or to the Emigrants' Information Office, 31, Broadway, Westminster.

"TREATMENT BY CHEMISTS."

To the Editors of THE LANCET.

SIRS,—In reference to the above, allow me to say that it was my lot, immediately after reading "Enquirer's" letter in your issue of Dec. 8th (p. 1160), to have experience of the same thing.

A friend and patient, who had had albuminuria for six or seven years, suffered much from insomnia and cramp. I had always found bromides to disagree, and as the albumen was fully one-half, morphine was inadmissible. On Sunday, the 9th inst., he said to me that he had had a beautiful night, that he had been talking to ——, the chemist, who had recommended bromide. On his replying that bromide of potassium disagreed, the chemist prescribed bromide of ammonium. On the following Tuesday hæmorrhage came on from the neck of the bladder (decidedly not from the kidneys), and this continued in spite of treatment till the Thursday. On the Saturday, at 3 A.M., he died of syncope, a cardiac murmur having become audible in this attack. I am inclined to ascribe the hæmorrhage to a piece of calculus or to a growth in the bladder; to the former perhaps, as there had been dorsal pain and twitchings of the legs for many months, and the father had died of renal colic. I would not have ventured to give the drug, but I think it may be acquitted.

I am, Sirs, yours truly,

Dec. 13th, 1888. ENQUIRER No. 2.

THE CASE OF MEDIASTINAL GROWTH AT THE TIVERTON INFIRMARY.

To the Editors of THE LANCET.

SIRS,—With regard to the case of mediastinal growth which you kindly inserted in your issue of the 15th inst., will you allow me to state that the patient was under the care of Dr. Haydon.

I am, Sirs, yours faithfully,

G. MICHELMORE, House Surgeon

The Infirmary, Tiverton, Dec. 15th, 1888.

"THE METROPOLITAN HOSPITAL."

To the Editors of THE LANCET.

SIRS,—Dr. Morison requires proofs of my statements, and I send the following cases.

1. Two lads have been attending the provident department on and off since June last, and what have they paid for medicine and advice? Merely the charge of a 1d. for "making up the prescription." It has been found by them that to take out a card of membership is superfluity itself—"supervision is slight; confusion great." 2. Four persons just recently have done the "higgling" with local practitioners to induce them to take a lower fee than usual, because Dr. So-and-so can be had for 15*s.* by joining the hospital. 3. A tradesman, making a fortune, sends his servant to the provident department, and by this medium occasionally adds a child to the list of "thrifty poor." 4. A patient of a local practitioner had a considerable attendance last year, paid cheerfully an account of £5; on advice went into the hospital, paying 10*s.* 6*d.* per week. Whilst there she was induced to join the provident department, and can now be visited for 1*d.* per week by the practitioner longest established in the neighbourhood. In the bed adjoining hers was the wife of a public-house manager, who also joined. This patient testifies that there is practically no restriction placed upon candidates for admission, the only apparent desire being to get the largest possible number of members. 5. This patient was engaged in the city. Parents both living, in good circumstances, occupying the whole of a house rented till recently at £48 per annum. Has enjoyed Dr. Morison's "charity aimed at maintaining a spirit of self-help among the thrifty poor," but is now paying 1*s.* 6*d.* for advice and medicine at the house of her medical adviser.

Let Dr. Morison make no mistake; I do not question the *bona fides* of himself and his colleagues, consulting and general. They have placed themselves, in return for the honorarium they receive, in the hands of the officials of an institution of which the philanthropy is centripetal, now that it has departed from its intended procedure. They cannot gauge the amount of damage they do to the profession and to their own practices. They cannot shut their eyes to the fact that the course adopted has called out and is provoking hostile criticism from amongst the personal friends of the medical staff, and this ought to be sufficient to indicate to them that the thing is radically wrong. They must not pose as the guardians of the "just rights of local practitioners," and they cannot claim that they "meet the wants of the poor" by taking payment. Dr. Morison's letter, whilst one great excuse for, is also one great accusation of, the institution in question. Let it be free, as it should be, or cease to exist; at present it is a dreary blot on the landscape of Kingsland. I am, Sirs, yours truly,

Kingsland-road, N., December, 1888. GEO. LOCKE.

J. A. H.—We should advise our correspondent to accept the fee offered, which is double the amount usually paid for the same duties in the metropolis. Of course, he can refuse to act on a future occasion. We may remind "J. A. H." that it is the magistrate who fixes the fee, and is responsible for the same, not the relieving officer, and it is to the magistrate he must apply if he is dissatisfied.

No. 2.—We think our correspondent is liable for something; but if the matter went into the county court, the amount payable by him would be subject to the personal opinion of the judge, which cannot be predicated.

INTOLERANCE TO QUININE.

To the Editors of THE LANCET.

SIRS,—Urticaria following the administration of quinine is so unusual that the following case should, I think, be recorded.

A lady consulted me for neuralgia, and I prescribed three-grain doses of quinine. Immediately on taking the first dose she felt faint and experienced intense itching all over the body, but especially on the face and hands; this was accompanied by a rash, which, from her description, was evidently urticaria. On seeing her an hour after the administration of the medicine, I found her face immensely swollen, eyes watery and injected; her gums appeared to be swollen also, but from the difficulty she had in opening her mouth I could not get a good view of them. The rash had nearly disappeared; there was no increase of pulse or rise of temperature. The patient informed me that the last time she took quinine, about a year ago, she had very much the same symptoms. The curious part of the case, however, is that when living in India a year or two ago, she was accustomed to take quinine in both large and small doses without any untoward effect.—Yours faithfully,

Dec. 7th, 1888. E. G. HUNT.

HOME FOR EPILEPTICS.

To the Editors of THE LANCET.

SIRS,—In the last two issues of THE LANCET, correspondents have asked for information respecting a home for epileptics. St. Luke's, a small private home for all nervous diseases, was started in 1883, and is worked by a doctor's widow, a trained lady nurse. The terms depend on the supervision needed. The girl of thirteen referred to by "H. S." could be received on application.—Yours faithfully,

Croydon, Dec. 15th, 1888. E. M. R.

Alan Bell, M.B.—We are not aware that salicylate of soda produces anæmia of the larynx and tonsils. Its value in certain cases of tonsillitis is possibly attributable to its anti-rheumatic properties. We should doubt its efficacy in diphtheria.

THE TREATMENT OF SEA SICKNESS.

REGARDING the myosis, constipation, and lowered arterial tension in sea sickness as indicative of the abeyance in function of the sympathetic nerve, due probably to reflex excitation of the abdominal nerves, and regarding further the nausea and vomiting to depend on the anæmia of the medulla produced by the lowered blood pressure, Dr. N. S. Giberson (*Sacramento Medical Times*) advocates the use of remedies directed to increase arterial tension. Such drugs are atropine, strychnine, and caffeine, and should be administered hypodermically. In cases where there is no vomiting, but severe headache, flushed face, and tendency to mental aberration, caffeine is to be preferred; but in ordinary cases atropine ($\frac{1}{100}$ gr.) and strychnine ($\frac{1}{30}$ gr.) may, says Dr. Giberson, be injected with marked relief. He gives two cases, out of many, where this treatment—repeated, if necessary, after an interval—was strikingly successful. Moreover, unlike morphia or cocaine and other sedatives, these remedies do not impair the appetite, but rather the reverse.

G. K.—1. The original of Dr. Sangrado in "Gil Blas" is said to be (*vide* Voltaire's "Écrivains Français du Siècle de Louis XIV.") Dr. Philippe Hecquet, who strenuously advocated fasting and venesection in diseases of nearly every class. Dr. Hecquet published a book of some note at the time on "Trituration" as the chief factor in digestion.—2. Sangrado is not derived from *sans* (without) and *grade* (degree), as meaning an unqualified practitioner, but from *sangrador* (bleeder, in Spanish), in allusion to his favourite practice of depletion.

M. Wold.—We cannot undertake the task. Neale's Digest might be of service.

PALM REFLEX (?).

To the Editors of THE LANCET.

SIRS,—I wish to draw your attention, and, if you think it worthy, that of your readers, to a "reflex" which can be obtained in the palm, by pressing firmly upon the pisiform bone with the thumb of the disengaged hand. It appears to be a reflex contraction of the palmaris brevis, for you can get it in some cases by pinching the skin in the same locality. Two years ago I struck a wall violently with the ulnar side of my right hand, and as a result had traumatic synovitis in the joint between the pisiform and cuneiform bones; and it was in tapping the joint surfaces together, when the effusion was disappearing, that I first noticed this contraction of the palmaris brevis. Since then I have tested the palms of a great number of people, and have only very exceptionally failed to get this "reflex," if I may so call it. This I account for in some cases by the fact that the palmaris brevis is not always present, and is sometimes found in only a very rudimentary condition. The high position of this "reflex," and its being so conveniently situated for testing, make me hope that a knowledge of its presence may be of use in diagnosis.

I am, Sirs, yours faithfully,

H. B. BOYNTON-LEE.
Sheffield, Dec. 12th, 1888. Medical Tutor.

THE NEXT CENSUS.

To the Editors of THE LANCET.

SIRS,—It seems to me very desirable that when the next census of the population is taken data should be collected as to the physique of the people; and I therefore suggest the following plan, in the hope that you will help me in bringing it before the profession and in urging its adoption by the Government. To determine the physique, I believe it will be sufficient if the height and chest measurement of every man between the ages of twenty and thirty be recorded. These two facts could be easily ascertained if men were appointed to take the measurement and deliver a formal certificate to each man at any time during the two months preceding the census day. The certificates would be collected with the census paper. If the Government should refuse to incur the expense, then I propose that the medical men should organise associations of gentlemen who would volunteer to do the work. In ten years we should be able to answer the vexed question, whether we are, as a nation, deteriorating or improving in physique.

I am, Sirs, yours truly,

Birmingham, Dec. 19th, 1888. E. WYNNE THOMAS, M.D.

THE DURHAM DEGREE.

To the Editors of THE LANCET.

SIRS,—As one of the candidates who recently presented themselves for the M.D. degree of the University of Durham (practitioners of fifteen years' standing), I wish to point out an error into which many medical men and others fall concerning it. There is an opinion prevailing that the enormous fee charged for the examination assists them in obtaining the degree, and that on account of it the examination is modified in its severity. Let all who think so at once dispel it from their minds. The examination is essentially a fair one, conducted with the utmost courtesy and kindness, but with rigid exactness and the most searching clinical severity, no favour of any kind shown, either on account of age, fee, or any other circumstance. Anyone wishing to obtain the degree must be most thoroughly conversant with each and every subject, and be prepared for an exhaustive examination, clinically, theoretically, microscopically, and *viva voce*, success being only obtained on reaching a high standard of marks. I am, Sirs, yours faithfully,

December, 1888. A CANDIDATE.

THE USE OF ALCOHOL IN WORKHOUSES.

MR. RICHARD S. ALLEN, the medical officer of the Belper workhouse, having been asked to explain an increased use of alcohol, has defended his prescription of it with vigour. He quotes several instances where he considered it saved life. He hopes it will never fall to his lot in old age, when heart and bloodvessels are failing and friends are few, to get into a workhouse where the comforts and blessings so considerately sanctioned by the Local Government Board are denied. He points out that only the sick have received the alcohol.

An Inquiring Nurse might consult "Antiseptics, a Handbook for Nurses," by Annie M. Hewer (Crosby Lockwood and Son, Stationers'-Hall-court).

SKIN GRAFTING IN ECTROPIUM.

To the Editors of THE LANCET.

SIRS,—In ectropium will some of your readers give me the result of treatment by skin grafting?—I am, Sirs, yours faithfully,

Newhaven, Dec. 19th, 1888. FRED. DALTON.

ERRATUM.—In the list of signatories to the Memorial to the President and Council of the British Medical Association published in our last number, the name "Mr. W. J. Trentler" should read Dr. W. J. Treutler.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Heron, London; Prof. Schüller, Berlin; Dr. Boobbyer, Nottingham; Sir M. Mackenzie, London; Mr. Haywood, Nottingham; Messrs. Read and Bailey, London; Mrs. Wold, Naples; Mr. C. W. Chapman, Tunbridge Wells; Dr. H. Tanner, Audlem; Dr. Hovent, Brussels; Mr. Noble Smith, London; Mr. Tyrrell Brooks, Oxford; Dr. E. W. Thomas, Birmingham; Mr. G. N. Pitt, London; Dr. Lediard, Carlisle; Mr. J. J. Clarke, London; Mr. W. H. A. Jacob, Sheffield; Mr. G. W. B. Stevens; Mr. C. Siewers, London; Mr. Tapp, Bristol; Dr. Treutler, Fletching Uckfield; Dr. Silk, London; Mr. W. T. Colman, Brighton; Mr. Adams Frost, London; Dr. T. Oliver, Newcastle-on-Tyne; Dr. Adam, West Malling; Mr. J. T. Hosker, Boscombe; Mr. Clifford, London; Dr. H. Campbell, London; Mrs. Llewellyn, Somersetshire; Dr. McMordie, Belfast; Mr. R. Gibb, Nottingham; Mr. F. E. Cane, Leeds; Dr. J. R. Lee, London; Dr. C. Kidd, Bromsgrove; Mr. Tratman, London; Dr. J. Davidson, Uxbridge; Mr. Dawson, Huddersfield; Messrs. Brady and Martin, Newcastle; Mr. Stock, Darlington; Messrs. Maythorne and Son, Biggleswade; Mr. Hope, London; Mr. Hay; Messrs. Van Houten and Son, Holland; Mr. H. Fox, Newcastle-on-Tyne; Messrs. Benson and Co., London; Mr. W. J. Blakeney, Brisbane; Messrs. Hawkes and Co., London; Mr. Buck, Clapton; Dr. Lord, London; Dr. A. Bell, Coleshill; Dr. Roche; Mr. Jessett, London; Dr. J. F. Sutherland, Glasgow; Mr. W. C. Steele; Mr. Gaylor, Belper; Mr. J. H. Williams, Llanybyther; Mr. C. Forsyth, Leeds; Mr. T. R. Dundas; Mr. G. Locke; Mr. Birchall, Liverpool; Mr. Donkin, London; Dr. Bander, Paris; Mr. Arrowsmith, Bristol; Mr. Ellis, London; Mr. Whitla, Belfast; Mr. Monks, Marseilles; Mr. Barrow, Surrey; Mr. Southern, Derby; Mr. Armstrong, Newcastle; Mr. Denman, Bucks; Mr. Davies, Kent; Mr. Oliver, Manchester; Mr. Potter, Liverpool; Dr. Williams, London; Mr. Hodgson, London; Mr. Chisholm, London; Mr. Casson, Ulverston; Sigmund Stern, Meran; Dr. Wetherell, Barnsley; Mr. F. Dalton, Newhaven; Enquirer; Sybil, London; An Inquiring Nurse; Enquirer No. 2; M.D.; J. S.; Junior; Seedy; Ethic; Ruby; Sanitas Co., London; F. F. P. S., Salop; N. Ghosh, Bombay; Royal Baking Co., New York; Fides, London; No. 9; R. B.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Exley, Leeds; Mr. Crassweller, Highbury; Mr. Clarke, Sheffield; Mr. Ellis, Leicester; Mr. Kamakhya, India; Dr. Peacock, India; Messrs. Lee and Martin, Liverpool; Mr. Hardwick, Cornwall; Mr. Nutman, Great Yarmouth; Mr. Pedley, London; Mr. Potter, Liverpool; Mr. Wilson, Huddersfield; Mr. Kelvin, Manchester; Mr. Heywood, Manchester; Mr. Hewett, London; Mr. Hornibrook; Dr. Allwright, Maidenhead; Pax, London; Alpha, Bristol; Spes, London; Liverpool Northern Hospital; Medicus, Southampton; Foulds, Darwen; D., Essex; Lady Superintendent, Bedford; P. T., Durham; Alpha, Leeds; Borough of Leeds; Edinburgh, London; Antiphon, London; Surgeon, Okenshaw; Medicus, Newcastle; Medicus, Croydon; K. L., London; Bran, London; M.A., Birmingham; F.R.C.S., Sheffield; D. M., London.

Devon and Exeter Daily Gazette, The Naples Observer, Surrey Advertiser, Manchester Guardian, Sunderland Herald and Daily Post, Herald and Weekly Free Press, Derby Express, Hertfordshire Mercury, Keene's Bath Journal, Iron, &c., have been received.

Medical Diary for the ensuing Week.

Monday, December 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, December 25.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M.

Wednesday, December 26.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical visits on Wednesday and Saturday at 9.15 A.M.

Thursday, December 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: Clouds and Cloudland. (Adapted to a juvenile auditory.)

Friday, December 28.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, December 29.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: Clouds and Cloudland. (Adapted to a juvenile auditory.)

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